SONY

3-865-344-11(1)

LCD Data Projector

Operating Instructions GB
Mode d'emploi FR
Manual de instructions ES

VPL-X2000U
VPL-X2000E
VPL-X2000M

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English

WARNING

To prevent fire or shock hazard, do not expose the unit to rain or moisture.

To avoid electrical shock, do not open the cabinet. Refer servicing to qualified personnel only.

CAUTION
RISK OF ELECTRIC SHOCK DO NOT OPEN
CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

For the customers in the USA

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

For the customers in Canada

This Class A digital apparatus complies with Canadian ICES-003.

For the customers in the United Kingdom

WARNING
THIS APPARATUS MUST BE EARTHED

IMPORTANT

The wires in this mains lead are coloured in accordance with the following code:

Green-and-yellow	: Earth
Blue	: Neutral
Brown	: Live

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug proceed as follows:
The wire which is coloured green-and-yellow must be connected to the terminal in the plug which is marked by the letter E or by the safety earth symbol ⏚ or coloured green or green-and-yellow.
The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.
The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

Voor de klanten in Nederland

Bij dit produkt zijn batterijen geleverd. Wanneer deze leeg zijn, moet u ze niet weggooien maar inleveren als KCA.

The socket-outlet should be installed near the equipment and be easily accessible.

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GB English

Precautions

On safety

- Check that the operating voltage of your unit is identical with the voltage of your local power supply. If voltage adaptation is required, consult with qualified Sony personnel.
- Should any liquid or solid object fall into the cabinet, unplug the unit and have it checked by qualified Sony personnel before operating it further.
- Unplug the unit from the wall outlet if it is not to be used for several days.
- To disconnect the cord, pull it out by the plug. Never pull the cord itself.
- The wall outlet should be near the unit and easily accessible.
- The unit is not disconnected from the AC power source (mains) as long as it is connected to the wall outlet, even if the unit itself has been turned off.
- Do not look into the lens while the lamp is on.
- Do not place your hand or objects near the ventilation holes — the air coming out is hot.

On installation

- When the projector is mounted on the ceiling, the Sony PSS-2000 Projector Suspension Support must be used for installation.
- Allow adequate air circulation to prevent internal heat build-up. Do not place the unit on surfaces (rugs, blankets, etc.) or near materials (curtains, draperies) that may block the ventilation holes. Leave space of more than 30 cm (11 7/8 inches) between the wall and the projector. Be aware that room heat rises to the ceiling; check that the temperature near the installation location is not excessive.
- Do not install the unit in a location near heat sources such as radiators or air ducts, or in a place subject to direct sunlight, excessive dust or humidity, mechanical vibration or shock.

On illumination

- To obtain the best picture, the front of the screen should not be exposed to direct lighting or sunlight.
- Ceiling-mounted spot lighting is recommended. Use a cover over fluorescent lamps to avoid lowering the contrast ratio.
- Cover any windows that face the screen with opaque draperies.
- It is desirable to install the projector in a room where floor and walls are not of light-reflecting material. If the floor and walls are of reflecting material, it is recommended that the carpet and wall paper be changed to a dark color.

On preventing internal heat build-up

- After turning off the power, the cooling fan runs for about six minutes while the ON indicator flashes in green. The indicator flashes quickly for 30 seconds. During that time, you will not be able to turn the power back on with the ON key.

Caution

The projector is equipped with ventilation holes (intake) at the bottom/front side and ventilation holes (exhaust) at the left/right side.
Do not block or place anything near these holes, or internal heat build-up may occur, causing picture degradation or damage to the projector.

On cleaning

- To keep the cabinet looking new, periodically clean it with a soft cloth. Stubborn stains may be removed with a cloth lightly dampened with a mild detergent solution. Never use strong solvents, such as thinner, benzene, or abrasive cleansers, since these will damage the cabinet.
- Avoid touching the lens. To remove dust on the lens, use a soft dry cloth. Do not use a damp cloth, detergent solution, or thinner.
- Clean the air filter in every 100 hours.

On repacking

- Save the original shipping carton and packing material; they will come in handy if you ever have to ship your unit. For maximum protection, repack your unit as it was originally packed at the factory.

Features

High brightness, high picture quality

• High brightness
Adopting four 120 W UHP lamps and newly developed optical system povides high brightness (light output 2400 of ANSI lumen) and excellent uniformity on the picture.

• High resolution
Thanks to use of three 1.8-inch XGA[1] panels with approximately 790,000 pixels, the projector can project the sharp picture with the resolution of 1024 × 768 pixels.

• DRC (Digital Reality Creation)
The DRC technology allows you to obtain a finer, more detailed picture with four-times higher density than the conventional video picture.

Accepts various input signals

This projector has a built-in high performance scan converter which converts the input signals to display the 15 k RGB, HDTV, VGA[1], SVGA[1], XGA[1], SXGA[1] and UXGA[1] (fV = 60 Hz) signals as well as the video signals of the composite, S video and component.

System expandability and versatility

The projector has RS-232C/422A/PJ COM interface connectors for communication.
By combining the interface boards and signal interface switcher (not supplied), VPL-X2000U/X2000E/X2000M projection systems can be greatly expanded. This projector also has the group and device index functions for using multiple projectors in one system.

Easy and flexible setup

• Sony's original APA (Auto Pixel Alignment) function
You can obtain the clearest picture automatically by simply pressing the APA key when the signal is input from a computer.

• Easy setup with external equipment
This projector has 39 preset data for input signals in the memory. You can get a picture properly on the screen by connecting equipment and pressing the APA key.

1) VGA, SVGA, XGA, SXGA and UXGA are the registered trademarks of the International Business Machines Corporation, U.S.A.

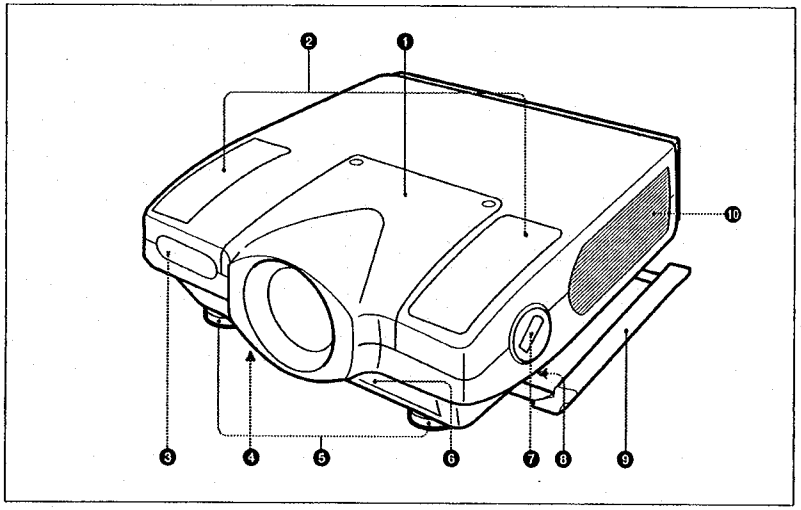
• Flexible setup
The lens shift function allows you to install the projector in a wide range of locations, without worrying about keystone distortion (the picture going out of square). The power focus and power zoom functions also let you change the size of the projection screen without having to move the projector.

• Stack installation
Thanks to the lens shift function, up to three projectors can be stacked, which improves the brightness of the image.

• Fail safe function
The projector uses four lamps for light source. Even if one of them has burnt out, you can still use the projector. If two lamps have burnt out, the projector will automatically enter into standby mode.

Location and Function of Controls

Front



1 **Lens mount part**
When attaching the optional lens, consult with the Sony service personnel.

2 **Speaker**

3 **Front remote control detector**

4 **Bottom ventilation holes (intake)**
Do not block the holes.

5 **Adjusters**
Use the adjusters to keep the projector level if it is installed on an uneven surface.

6 **Front ventilation holes (intake)**
Do not block the holes.

7 **Adjuster button and lever**
Press the button to raise the lever for adjusting the height of the adjuster.

8 **Handle lever (left and right sides)**
Use the lever for putting away the carrying handle.

9 **Carrying handle (left and right sides)**
Pull out the handle for carrying the projector.

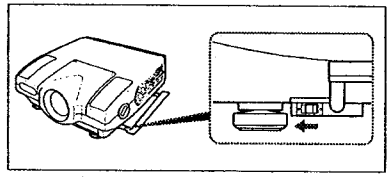
!... **Left and right side ventilation holes (exhaust)**
Do not place anything within the 30 cm (11 7/8 inches) range from these holes or block them.

Notes

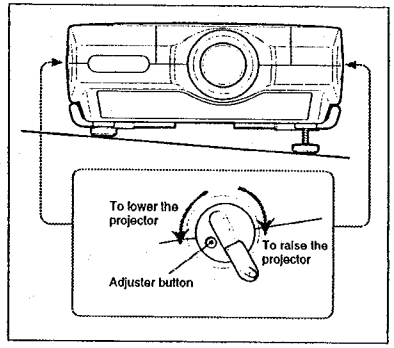
- Do not block the ventilation holes, or internal heat build-up may occur, causing fire or damage to the projector.
- Do not place anything near the ventilation holes or touch these holes as the temperature will be very high.

Using the carrying handles

Pull out to use for carrying the projector. To put away the handle, slide the handle lever forward.



Using the adjusters

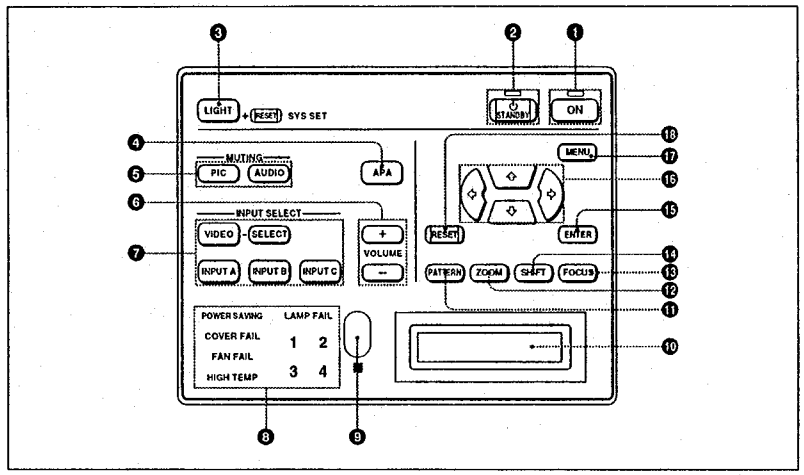


1 Press the adjuster button.
The adjuster lever comes out.

2 Turn the lever to adjust the height so that the projector becomes level.

3 Replace the adjuster lever after use.

Control panel



1 ON key and indicator
Press to turn on the power of the projector.
The indicator lights when the key is pressed.
The indicator flashes for about six minutes after the power is turned off by pressing the STANDBY key, as the fan runs for six minutes to cool down the inside of the projector. The indicator flashes quickly for 30 seconds, during which you will not be able to turn the power back on with the ON key.

2 STANDBY key and indicator
Press to make the projector enter standby mode.
The indicator lights to indicate that the projector is in standby mode.

3 LIGHT key
Illuminates the key indicators in orange when the projector is turned on. Illuminates the indicators for the relative keys in green when this key is pressed during operation. Press again to turn off the indicators.

Pressing this key and the RESET key simultaneously has the same function as the SYS SET key on the Remote Commander. Use when the PC-3000 signal interface switcher is used in the system or the system connections are changed.

4 APA (Auto Pixel Alignment) key
Adjusts the position of the picture on the screen automatically so that the picture is clearly visible when the signals are input from a computer.

5 MUTING keys
Cut off the picture or sound temporarily.
PIC: Press to cut off the picture. Press again to restore the picture.
AUDIO: Press to cut off the sound output from the speakers or the AUDIO OUT jacks. Press again or press the VOLUME + key to restore the sound.

6 VOLUME +/– keys
Adjust the volume of the built-in speakers and output level of the AUDIO OUT jacks.
+ : Increases the volume.
– : Decreases the volume.

❼ INPUT SELECT keys
Select the input signal.
VIDEO: Selects the video signal input from the VIDEO or S VIDEO connectors and the audio signal input from the AUDIO IN L/R jacks. To switch the S VIDEO and VIDEO connectors, use the SELECT key.
SELECT: Each time you press this key, the input video signal is switched between the VIDEO and S VIDEO connectors.
INPUT A: Selects the audio and video signals input from the INPUT A connectors.
INPUT B: Selects the signal input from the connectors on the optional interface board which is installed in the INPUT B section. When the IFB-12A interface board is installed and the output mode is selected on the IFB-12A, the key does not function.
INPUT C: Selects the signal input from the connectors on the optional interface board which is installed in the INPUT C section.

Note on the VPL-X2000E model
The optional IFB-X2000E interface board is required to select VIDEO.

❽ Indicators
POWER SAVING: Lights when the projector is in power saving mode. When POWER SAVING in the SET SETTING menu is set to ON, the projector goes into the power saving mode if no signal is input for 10 minutes. Although the lamp goes out, the cooling fan keeps running. In the power saving mode, only the STANDBY key functions for the first 30 seconds. The power saving mode is canceled when a signal is input or any key is pressed.
COVER FAIL: Lights when the lamp cover or air filter cover is not secured firmly.
FAN FAIL: Lights when the fan is broken.
HIGH TEMP: Lights when temperature inside the projector becomes unusually high.
LAMP FAIL: When the lamp life has reached the end, the indicator of that lamp lights.

❾ Rear remote control detector

❿ Message display window
Displays the signal status, timer and error messages about the input signals.

⓫ PATTERN key
Displays a HATCH pattern on the screen for focus, zoom, and shift adjustments. Press again to turn off the HATCH pattern.

⓬ ZOOM key
Enters the zoom adjustment mode. When the key is pressed, the relative keys light in green.
Next adjust the zoom using the arrow keys.
↑: Enlarges the picture size.
↓: Reduces the picture size.

Note
If the VPLL-2075, VPLL-2014 or VPLL-2009 optional lens is installed, you cannot adjust the zoom.

⓭ FOCUS key
Enters the focus adjustment mode. When the key is pressed, the relative keys light in green.
Next adjust the focus using the arrow keys.
↑: Focuses on a forward picture.
↓: Focuses on a picture further back.

⓮ SHIFT (lens shift) key
Enters the shift adjustment mode. When the key is pressed, the relative keys light in green.
Next adjust the vertical position of the picture using the arrow keys.
↑: Moves the picture upward.
↓: Moves the picture downward.

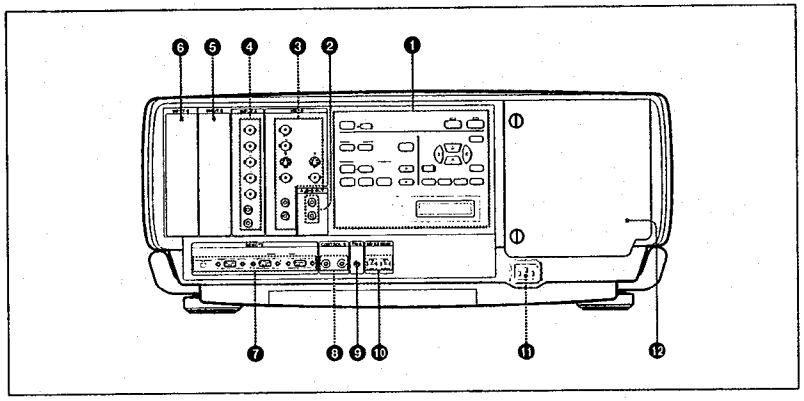
⓯ ENTER key
Stores the settings in the menu.

⓰ Arrow keys (↑/↓/←/→)
Used to adjust the picture after pressing the ZOOM, FOCUS or SHIFT key. Also used to move the cursor or adjust the value in the menu.

⓱ MENU key
Displays the menu on the screen. When the key is pressed, the relative keys light in green.
Press again to turn off the menu.

⓲ RESET key
Resets the adjusted value of an item to its factory preset value. This key functions when the menu or a setting item is displayed on the screen.

Rear



1 Control panel
For details, see pages 10 (GB) and 11 (GB).

2 AUDIO OUT L/R jacks (phono type)
Connect to external active speakers.
The volume of the speakers can be controlled by the VOLUME keys on the Remote Commander or the control panel.

3 VIDEO connectors
Connect to external video equipment, such as a VCR.

Y IN/C IN (BNC type): Connect to the Y and C video outputs of the video equipment.

S VIDEO IN (mini DIN 4-pin): Connects to the Y/C video output of the video equipment.

S VIDEO OUT (mini DIN 4-pin): Used as loop-through output via the Y/C IN connectors or the S VIDEO IN connector.

VIDEO IN (BNC type): Connects to the composite video output connector of the video equipment.

VIDEO OUT (BNC type): Used as loop-through output of the VIDEO IN connector.

AUDIO IN L (MONO)/R jacks (phono type): Connect to the audio output jacks of equipment, such as a VCR. For stereo equipment, use both the L and R jacks; for monaural equipment, use the L (MONO) jack only.

Note
If you have video equipment connected to both the Y/C IN and S VIDEO IN connectors, the signal from the Y/C IN connectors are selected prior to the S VIDEO IN connector. When projecting video connected to the S VIDEO IN connector, be sure not to connect any cable to the Y/C IN connectors.

Note on the VPL-X2000E model
The optional IFB-X2000E interface board is required for using the VIDEO connectors.

4 INPUT A connectors

RGB input connectors (R/R-Y/P_R, G/Y, B/B-Y/P_B, SYNC/HD, VD) (BNC type): Connect to the video outputs of equipment such as a computer or a video camera.
According to the connected equipment, the RGB, component (R-Y, Y, B-Y) or HDTV (P_R, Y, P_B) signal is selected.

AUDIO IN L (MONO)/R jacks (phono type): Connect to the audio output jacks of equipment such as a computer or a video camera. For stereo equipment, use both the L and R jacks; for monaural equipment, use the L (MONO) jack only.

Note
The INPUT A connectors do not function when the PC-3000 signal interface switcher is connected.

❺ Signal interface board attachment part (INPUT B)
Optional signal interface board can be attached according to your requirements. If you install the IFB-12A interface board to this section and select the output mode, you can output the signal input through the INPUT A connectors.
For details on installing the interface boards, consult with qualified Sony personnel.

❻ Signal interface board attachment part (INPUT C)
Optional signal interface board can be attached according to your requirements.

Note
You cannot select the output mode when attaching the IFB-12A interface board.

❼ REMOTE connectors
Used to expand system capability.

RS-232C/RS-422A select switch: Selects according to the interface connected to the RS-232C/RS-422A connector.

RS-232C/RS-422A connector (D-sub 9-pin, female): Connect to a computer to operate the projector from the computer.

PJ COM IN/OUT connectors (D-sub 9-pin, female): The connectors conform to the RS-485 standards and are used to expand system capability for Sony projectors.

For details on connections, see the PJ COM protocol manual for Sony projectors.

❽ CONTROL S IN/OUT jacks (stereo minijack)
Connect to the control S jacks of other Sony equipment.

CONTROL S IN/PLUG IN POWER (DC 5 V output) jack: Connects to the CONTROL S OUT jack of the supplied Remote Commander when using as a wired Remote Commander. In this case, you do not need to install the batteries in the Remote Commander, since the power is supplied from this jack.

CONTROL S OUT jack: Outputs the control S signal.

Note
When connecting the remote commander cable to the CONTROL S IN jack, the remote control detectors will not function.

❾ TRIG (trigger output) jack (monaural minijack)
The signal is transmitted from this jack to the connected equipment whether the projector is on or off. (This is not a power source for external equipment.) Approximately 12 V DC signal is output when the projector power is on. The signal is 0 volt level output when the projector power is off.

❿ DEVICE INDEX switch
Set the device index number of the projector when using multiple projectors. You can set the numbers between "01" and "99". It is set to "01" at the factory. You can also set the group index number in the menu for system setup.

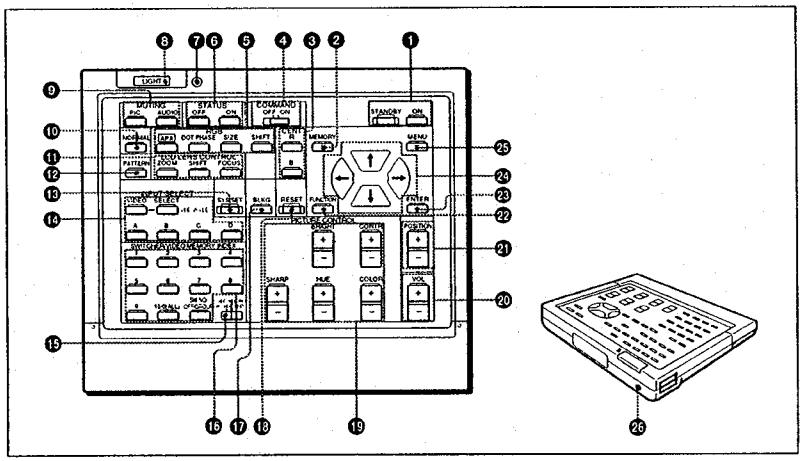
Note
Do not set the device index number to "00". If you do, the projector will be operated only with the keys on the control panel.

⓫ AC IN socket
Connect the supplied AC Power cord.

⓬ Lamp cover

Remote Commander

The Remote Commander can be used as a wireless or wired Remote Commander. The keys on the Remote Commander with the same names function the same as those on the control panel of the projector.
For details on control panel keys on the projector, see pages 10 (GB) and 11 (GB).



❶ ON/STANDBY keys

❷ MEMORY key
The key does not function with this projector.

❸ CENT R/B keys
The keys do not function with this projector.

❹ COMMAND ON/OFF key
No keys except for the LIGHT button on the Remote Commander function when this switch is set to OFF. This saves battery power.

❺ RGB keys
Adjust the picture.
APA: The key functions the same as the APA key on the control panel.
DOT PHASE: Press to adjust the phase of the LCD panels and the input signals (except for 15k RGB/video/HDTV signals). After pressing this key, adjust the position of the picture using the four arrow keys so that the clearest picture is obtained.
SIZE: Enters the size adjustment mode for the input signal. Next adjust the horizontal size of the picture using the arrow keys.
←: to reduce horizontal size
→: to expand horizontal size
SHIFT: Enters the shift adjustment mode for the input signal. Next adjust the position of the picture using the four arrow keys. The picture shifts in the direction of the arrow on the pressed key.

❻ STATUS ON/OFF keys
Press OFF to eliminate the on-screen display.
Press ON to restore the on-screen display.

Note
The menus and warning messages appear even if the OFF key is pressed.

❼ Transmission indicator
The light goes on each time a key is pressed. If the indicator does not light, replace the batteries.

❽ LIGHT button
Illuminates the key indicators when the COMMAND switch is set to ON. If the switch is set to OFF, only the COMMAND switch is illuminated.
If you do not press any key on the Commander for more than 30 seconds, the key indicators turn off automatically. The indicators also turn off if you press the LIGHT button again.

❾ MUTING keys

❿ NORMAL key
The key does not function with this projector.

⓫ LCD LENS CONTROL keys
Press one of the ZOOM, SHIFT and FOCUS keys and then the arrow keys (↑ or ↓).

⓬ PATTERN key

⓭ SYS SET (system set) key
When the PC-3000 signal interface switcher is used in the system or the system connections are changed, press this key.

Note
After connecting the PC-3000 switcher and pressing the SYS SET key, the input channel is set to SW1-1 when connecting a single switcher, or to SW1-2 when connecting two or more switchers.

⓮ INPUT SELECT keys
The D key does not function with this projector.

⓯ SWITCHER/VIDEO MEMORY/INDEX select switch
Selects the function of the SWITCHER/VIDEO MEMORY/INDEX keys.
SWITCHER: selects the input from the PC-3000 switcher.
VIDEO MEMORY: The position does not function with this projector.
INDEX: selects a projector by its index number when multiple projectors are used.

⓰ SWITCHER/VIDEO MEMORY/INDEX keys

When the **SWITCHER/VIDEO MEMORY/INDEX select switch** is set to **SWITCHER**

When the PC-3000 switcher is connected to the projector, press a number key (1 to 8) to select the input from the switcher. Number key 9 does not function.
To select an input when multiple switchers are connected, press the SW NO/OFF/GROUP key. Next press the switcher number (1 to 8) and the input number (1 to 8) in sequence. Be sure to press the keys one after another within 2 seconds.
e.g. To select input 4 of switcher 2, press the keys as follows:
SW NO → 2 → 4.

When the **SWITCHER/VIDEO MEMORY/INDEX select switch** is set to **INDEX**

Used to specify the device or group index number.

⓱ BLKG (blanking) adjustment key
Enters the blanking adjustment mode.
Next, press ↑/↓ key to select the position to be adjusted on the screen, and then adjust the position using the ←/→ keys.

⓲ RESET key

⓳ PICTURE CONTROL +/– keys
Adjust the picture conditions: CONTR (contrast), BRIGHT (brightness), COLOR, HUE and SHARP (sharpness).

⓴ VOL (volume) +/– keys

㉑ POSITION +/– keys
These keys do not function with this projector.

(Continued)

㉒ FUNCTION key
The key does not function with this projector.

㉓ ENTER key

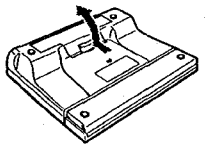
㉔ Arrow keys

㉕ MENU key

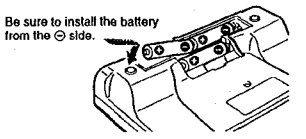
㉖ CONTROL S OUT Jack
Connect the supplied remote control cable to this jack and to the CONTROL S IN jack of the projector for wired remote control operation.
When the Commander is connected to the CONTROL S IN/PLUG IN POWER jack of the projector via the remote control cable (stereo), the power for the Remote Commander is supplied from the projector.

Battery installation

1 Push to open the lid.



2 Install three R6 (size AA) batteries (supplied) with the polarities correctly aligned.



3 Replace the lid.

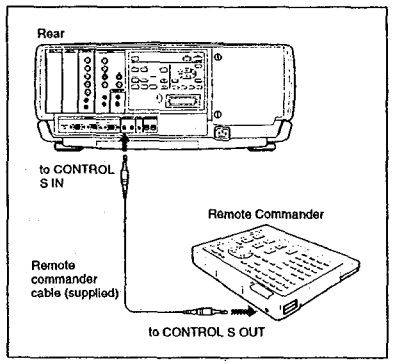
Notes on batteries

- Make sure that the battery orientation is correct when inserting batteries.
- Do not mix old battery with new one, or different types of batteries.
- If you will not use the Remote Commander for a long time, remove the batteries to avoid damage from battery leakage. If batteries have leaked, remove them, wipe the battery compartment dry and replace the batteries with new ones.

Notes on wireless Remote Commander operation

- Be sure that there is nothing to obstruct the infrared beam between the Remote Commander and the projector.
- The operation range is limited. The shorter the distance between the Remote Commander and the projector, the wider the angle within which the commander can control the projector.
- The remote control detectors on the projector do not operate when connecting the remote commander cable to the CONTROL S IN jack. If you wish to use the Remote Commander as a wireless Remote Commander, be sure to remove the remote commander cable from both the Remote Commander and the projector.

To connect the Remote Commander to the projector



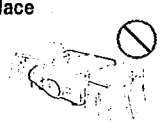
Note on wired Remote Commander operation using the supplied remote commander cable (stereo)

You do not need to install the batteries since the power is supplied from the CONTROL S IN jack on the projector. In this case, the batteries are not consumed.

Precautions on Installation

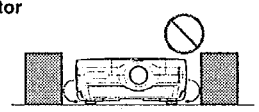
Do not install the projector in the following situations. These installations may cause malfunction or damage to the projector.

Do not install the projector in an ill-ventilated place



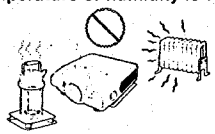
The projector is equipped with ventilation holes for intake on the bottom and front and ventilation holes for exhaust on the left and right sides to prevent internal heat build-up. Do not block these ventilation holes and allow adequate air circulation at an installation location.

Do not place any object beside the projector

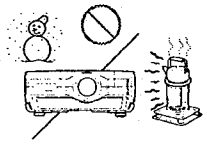


If you put something beside the ventilation holes on the sides, the exhaust may be inhaled into the projector through the ventilation holes (intake) at the bottom, causing the internal temperature to rise and thereby activating the protection circuit. Install the projector so that the exhaust is not blocked.

Do not install the projector in a location where temperature or humidity is very high

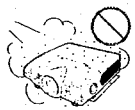


Avoid installing the projector in a location where temperature may rise or fall rapidly

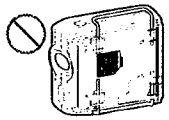


Be careful of air-conditioning and heating in a room where the projector is installed, as sudden changes in temperature may lead to moisture condensation and cause damage to the projector.

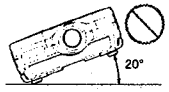
Avoid installing the projector in a location subject to excessive dust



Do not use the projector while laying it on its side

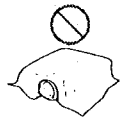


Do not tilt the projector when in use



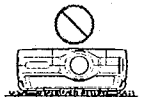
Avoid tilting the projector more than 20 degrees or installing it other than on the floor and ceiling. Such installations may cause malfunctions such as color irregularity or shortening of lamp life.

Do not cover the ventilation holes (exhaust)



Do not cover the front ventilation holes; otherwise, internal heat may build up.

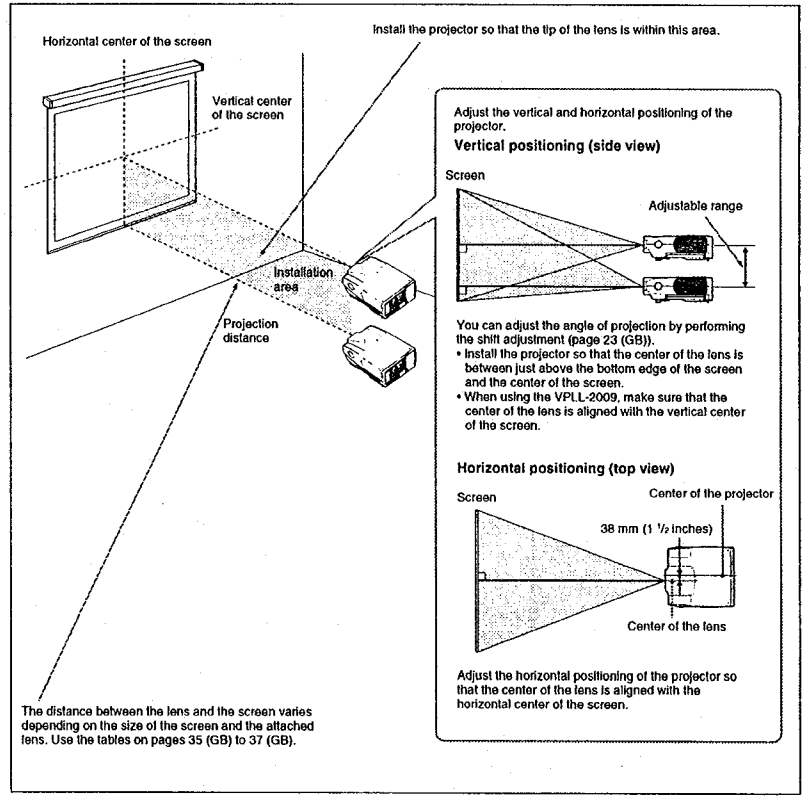
Do not install the projector on a deep-pile carpet



If you install the projector on a deep-pile carpet, the ventilation holes (intake) at the bottom may be blocked, causing an internal heat build-up.

Installing the Projector on the Floor

This section describes the installation arrangements for installing the projector on the floor. *For details on installation examples, see pages 34 (GB) to 37 (GB).*
For ceiling installation, consult with qualified Sony personnel *(see page 38 (GB)).*


Horizontal center of the screen
Install the projector so that the tip of the lens is within this area.
Vertical center of the screen
Installation area
Projection distance
The distance between the lens and the screen varies depending on the size of the screen and the attached lens. Use the tables on pages 35 (GB) to 37 (GB).
Adjust the vertical and horizontal positioning of the projector.
Vertical positioning (side view)
Screen
Adjustable range
You can adjust the angle of projection by performing the shift adjustment (page 23 (GB)).
• Install the projector so that the center of the lens is between just above the bottom edge of the screen and the center of the screen.
• When using the VPLL-2009, make sure that the center of the lens is aligned with the vertical center of the screen.
Horizontal positioning (top view)
Screen
Center of the projector
38 mm (1 ½ inches)
Center of the lens
Adjust the horizontal positioning of the projector so that the center of the lens is aligned with the horizontal center of the screen.

Connecting with a Computer or a VCR

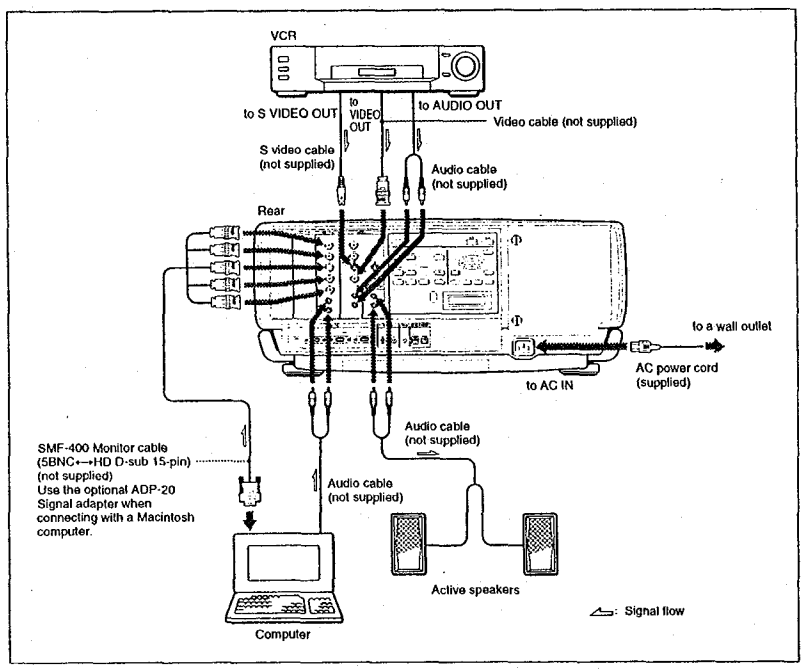
This section describes how to connect the projector with a computer, VCR, and external active speakers. *For details on how to connect other equipment, see pages 42 (GB) to 44 (GB).*
Also refer to the instruction manuals of the equipment to be connected.

When making connections, be sure to:

- turn off all equipment before making any connections.
- use the proper cables for each connection.
- insert the plugs of the cables properly; plugs that are not fully inserted often generate noise. When pulling out a cable, be sure to pull it out by the plug, not the cable itself.

Note on the VPL-X2000E model

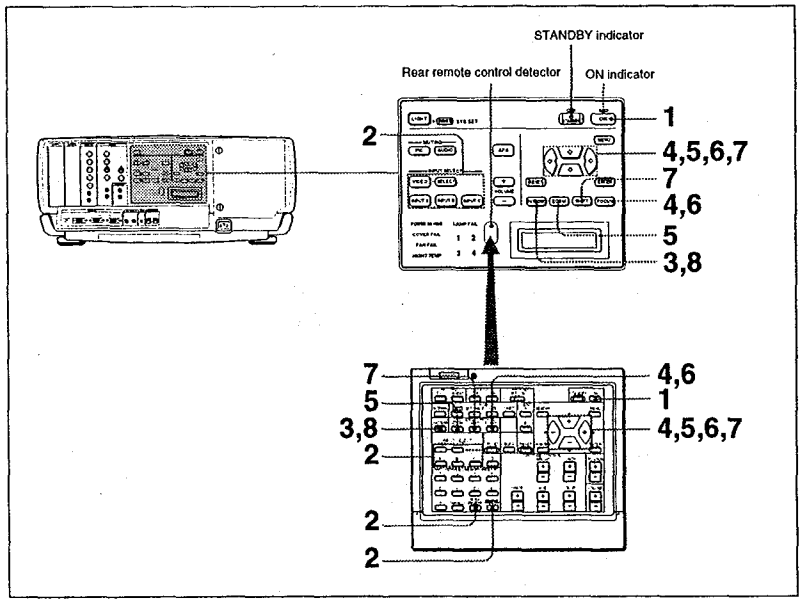
The optional IFB-X2000E interface board is required for using the VIDEO connectors.


VCR
to S VIDEO OUT
to VIDEO OUT
to AUDIO OUT
Video cable (not supplied)
S video cable (not supplied)
Audio cable (not supplied)
Rear
to a wall outlet
AC power cord (supplied)
to AC IN
Audio cable (not supplied)
SMF-400 Monitor cable (5BNC↔HD D-sub 15-pin) (not supplied) Use the optional ADP-20 Signal adapter when connecting with a Macintosh computer.
Audio cable (not supplied)
Active speakers
: Signal flow
Computer

Note

Set INPUT-A in the SIGNAL SELECT menu to RGB.
For details, see page 32 (GB).

Projecting



1 Press the ON key on the Remote Commander or the control panel.

The ON indicator lights in green.

2 Turn on the power of equipment connected to the projector. Press the INPUT SELECT keys on the Remote Commander or the control panel to select the input source.

VIDEO: Selects the video signal input from the VIDEO or S VIDEO connectors and the audio signal input from the AUDIO IN L/R jacks. To switch the VIDEO or S VIDEO connectors, use the SELECT key.
SELECT: Each time you press this key, the input signal is switched between VIDEO and S VIDEO.
INPUT A: Selects the audio and video signals input from the INPUT A connectors.
INPUT B: Selects the signal input from the connectors on the optional interface board which is installed in the INPUT B section.
INPUT C: Selects the signal input from the connectors on the optional interface board which is installed in the INPUT C section.

(Continued)

When you input the signal from equipment connected to the PC-3000 signal interface switcher (not supplied), set the SWITCHER/VIDEO MEMORY/INDEX select switch on the Remote Commander to the SWITCHER position and press the number keys to select the input. When multiple switchers are connected, press the SW NO/OFF/GROUP key, then press the number keys to select the input.

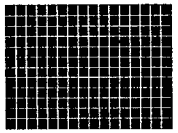
Note

Press the SYS SET key when you make the system connections using the PC-3000 switcher.

Note on the VPL-X2000E model

The optional IFB-X2000E is required for selecting VIDEO.

3 Press the PATTERN key on the Remote Commander or the control panel to display the HATCH pattern.



4 Press the FOCUS key then the ↑ or ↓ key on the Remote Commander or the control panel to adjust the focus.

"FOCUS" appears on the screen during adjustment.

5 Press the ZOOM key then the ↑ or ↓ key on the Remote Commander or the control panel to adjust the picture size.

"ZOOM" appears on the screen during adjustment.

Note

If the optional VPLL-2075, VPLL-2014 or VPLL-2009 lens is installed, you cannot adjust the zoom.

6 Press the FOCUS and arrow keys on the Remote Commander or the control panel to adjust the focus again.

"FOCUS" appears on the screen during adjustment.

7 Press the SHIFT key then the arrow keys on the Remote Commander or the control panel to adjust the vertical position of the picture.

"PICTURE SHIFT" appears on the screen during adjustment.

8 Press the PATTERN key again to clear the HATCH pattern.

To	Press
Adjust the volume	the VOLUME +/– keys.
Cut off the sound	the AUDIO MUTING key (also cuts off the signal output from the AUDIO OUT jacks.) To restore the sound, press the AUDIO MUTING key again or press the VOLUME + key.
Cut off the picture	the PIC MUTING key. To restore the picture, press the PIC MUTING key again.

Note

Do not look into the lens when the projector lamp is on.

To turn off the power

1 Press the STANDBY key on the Remote Commander or the control panel.

The ON indicator flashes in green and the cooling fan keeps running for about six minutes to reduce the internal heat. The ON indicator flashes quickly for 30 seconds. During this time, you will not be able to turn the power back on. After about 30 seconds, you can turn on the power with the ON key.

When the fan stops running, the STANDBY indicator lights in red.

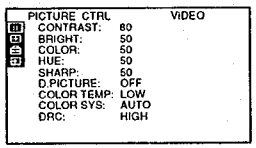
Note

To extend the lamp life, do not turn off the power for at least 10 minutes after turning on the power.

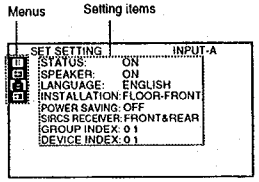
Using the Menu

The projector is equipped with an on-screen menu for making various adjustments and settings.
Unadjustable items are not displayed in the menu.
To change the language used in the menu, see page 30 (GB).

1 Press the MENU key.
The menu display appears.
The menu presently selected is highlighted in yellow.



2 Use the ↑ or ↓ key to select a menu, then press the → or the ENTER key.
The setting items of the selected menu are displayed.



3 Make setting or adjustment on an item.
For details on setting individual items, see the relevant menu pages.

To erase the menu display

Press the MENU key. The menu display also disappears automatically if no key is pressed for one minute.

To reset settings that have been adjusted

Press the RESET key.
"Reset complete!" appears on the screen and the settings appearing on the screen will be reset to their factory preset values.

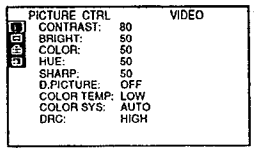
Items that can be reset are as follows:
CONTRAST, BRIGHT, COLOR, HUE, SHARP, DOT PHASE, SIZE, SHIFT and BLANKING.

About the memory of the settings

The settings are automatically stored in the projector memory.

The PICTURE CTRL Menu

The PICTURE CTRL menu is used for adjusting the picture. Unadjustable items are not displayed in the menu.



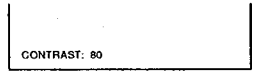
Operation

1. Select an item
Use the ↑ or ↓ key to select the item, then press the → or the ENTER key.

2. Adjust an item
- **When changing the adjustment level:**
  To increase the number, press the ↑ or → key.
  To decrease the number, press the ↓ or ← key.
  Press the ENTER key to restore the original screen.
- **When changing the setting:**
  Press the ↑ or ↓ key to change the setting, then press the ← or the ENTER key.
  The original screen is restored.

CONTRAST

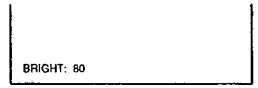
Adjusts the picture contrast.



The higher the setting, the greater the contrast.
The lower the setting, the lower the contrast.

BRIGHT (Brightness)

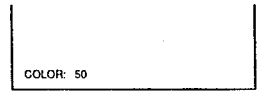
Adjusts the picture brightness.



The higher the setting, the brighter the picture.
The lower the setting, the darker the picture.

COLOR

Adjusts color intensity.



The higher the setting, the greater the intensity.
The lower the setting, the lower the intensity.

HUE

Adjusts skin tones.

At high settings, the picture becomes greenish.
At low settings, the picture becomes purplish.

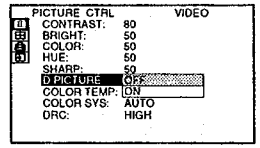
SHARP (Sharpness)

Adjusts the picture sharpness.

The higher the setting, the sharper the picture.
The lower the setting, the softer the picture.

D. (Dynamic) PICTURE

Emphasizes the black color.

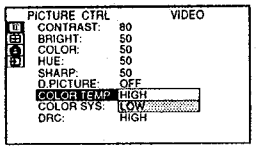


ON: Emphasizes the black color to produce a bolder "dynamic" picture.
OFF: Reproduces the dark portions of the picture accurately, in accordance with the source signal.

The PICTURE CTRL Menu

COLOR TEMP (temperature)

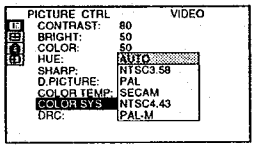
Adjusts the color temperature.



HIGH: Makes the white color bluish.
LOW: Makes the white color reddish.

COLOR SYS (system)

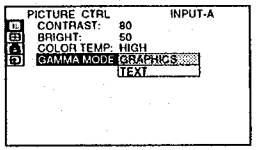
Selects the color system of the input signal.



Normally, set to AUTO.
If the picture is distorted or colorless, select the color system (NTSC3.58/PAL/SECAM/NTSC4.43/PAL-M) according to the input signal.

GAMMA MODE

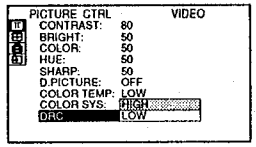
Select either position to obtain an optimum picture.



GRAPHICS: Improves the reproduction of half tones. Photos can be reproduced in natural tones.
TEXT: Contrasts black and white. Suitable for images with lots of text.

DRC (Digital Reality Creation)

Selects the level of DRC effects.



HIGH: Increases the DRC effects.
LOW: Decreases the DRC effects.

Input signals and adjustable/setting items

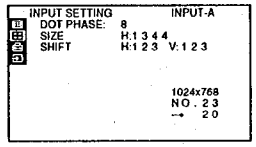
Item	Input signal					
	Video or S video	15k RGB	Compo-nent	RGB (preset)	RGB (preset) (HDTV-$Y/P_B/P_R$)	RGB (not preset)
CONTRAST	Y	Y	Y	Y	Y	Y
BRIGHT	Y	Y	Y	Y	Y	Y
COLOR	Y	N	Y	N	Y	N
HUE	Y (NTSC 3.58/ 4.43[1] only)	N	N	N	Y	N
SHARP	Y	N	Y	N	Y	N
D. PICTURE	Y	N	Y	N	N	N
COLOR TEMP	Y	Y	Y	Y	Y	Y
COLOR SYS	Y	N	N	N	N	N
GAMMA MODE	N	N	N	Y	N	Y
DRC	Y	Y	Y	N	N	N

Y: Adjustable/can be set
N: Not adjustable/cannot be set

1) NTSC4.43 is the color system used when playing back a video recorded in NTSC color system on a NTSC4.43 system VCR.

The INPUT SETTING Menu

The INPUT SETTING menu is used to change the settings of the input signal. Unadjustable items, which vary according to the input signal, are not displayed in the menu.



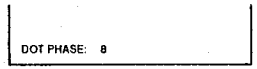
Operation

1. Select an item
Use the V or v key to select the item, then press the b or the ENTER key.

2. Adjust an item
- **When changing the adjustment level:**
  To increase the number, press the V or b key.
  To decrease the number, press the v or B key.
  Press the ENTER key to restore the original screen.
- **When changing the setting:**
  Press the V or v key to change the setting, then press the B or the ENTER key.
  The original screen is restored.

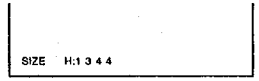
DOT PHASE

Adjusts the phase of the LCD panel and the input signal when H FILTER is set to OFF.
Adjust the value to obtain the clearest picture.



SIZE

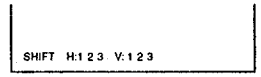
Adjusts the horizontal size of the picture.



As the setting for H increases, the horizontal size of the picture becomes larger, and as the setting decreases, the size becomes smaller. Adjust the setting according to the input signal.
Use the B or b key to adjust the horizontal size.

SHIFT

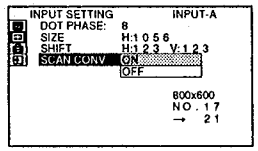
Adjusts the position of the picture.



H adjusts the horizontal position of the picture, and V adjusts the vertical position. As the setting for H increases, the picture moves to the right, and as the setting decreases, it moves to the left.
As the setting for V increases, the picture moves up, and as the setting decreases, it moves down.
Use the B or b key to adjust the horizontal position and the V or v key for the vertical position.

SCAN CONV (converter)

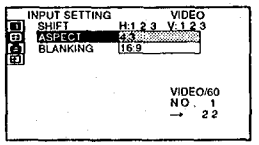
Converts the signal to display the picture according to the screen size.



ON: Displays the picture according to the screen size. The picture will lose some clarity.
OFF: Displays the picture while matching one pixel of input picture element to that of the LCD. The picture will be clear but the picture size will be smaller.

ASPECT

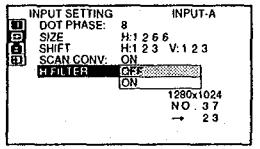
Sets the aspect ratio of the picture.
When inputting 16:9 (squeezed) signal from equipment such as a DVD player, set to 16:9.



4:3: When the picture with ratio 4:3 is input
16:9: When the picture with ratio 16:9 (squeezed) is input.

H FILTER

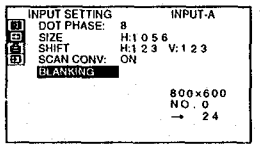
Corrects the vertical bands that appear on the picture.



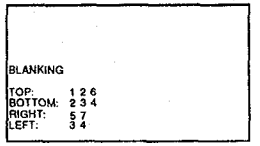
The vertical bands may occur when an RGB signal with horizontal resolution of more than 1024 × 768 pixels is input. In such cases, set to ON. The picture will loose some clarity, but the vertical bands will be reduced. Set to OFF to associate a dot of the input signal with a pixel of the LCD.

BLANKING

Adjusts if excess signals are seen with the picture, or the whole picture is not seen clearly.



Select BLANKING, then press the ENTER key to display the blanking adjustment screen.



Use the V or v key to select the part to be adjusted, and the B or b key to adjust.

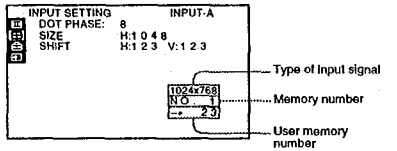
Input signals and adjustable/setting items

Item	Input signal				
	Video or S video	15k RGB	Compo-nent	RGB (preset)	RGB (not preset)
DOT PHASE	N	N	N	Y (except for HDTV)	Y
SIZE	N	N	N	Y	Y
SHIFT	Y	Y	Y	Y	Y
SCAN CONV	N	N	N	Y (Only for lower resolution than SVGA)	Y
ASPECT	Y	Y	Y	N	N
H FILTER	N	N	N	Y (Higher resolution than XGA)	Y (Higher resolution than XGA)
BLANKING	Y (TOP and BOTTOM only)	Y (TOP and BOTTOM only)	Y (TOP and BOTTOM only)	Y (HDTV-GBR, HDTV-Y/PB/PR only)	Y

Y: Adjustable/can be set
N: Not adjustable/cannot be set

INPUT MEMORY No.

The upper number indicates the memory number of the current input signal. The lower number indicates the user memory number.



About the memory function

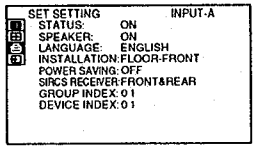
The adjustment data for 39 types of input signals are preset at the factory (preset memory).
When a signal is input to the projector, the signal type is automatimally detected and the data for the signal is called from the memory to display an optimum picture.
The data can be adjusted in the INPUT SETTING menu and the adjusted data will be saved as user memory.
When you save more than 200 user memories, the newest one always overwrites the oldest one.
The saved user memory number is displayed in the INPUT SETTING menu as n NO. □□.
When an RGB signal other than the preset signals is input to the projector, the memory number is displayed as 0 and the closest option is automatically selected from the preset 39 types of signals.

Memory No.	Preset signal		fH (kHz)	fV (Hz)	Sync	Horizontal size
1	Video 60 Hz		15.73	59.94	—	—
2	Video 50 Hz		15.63	50.00	—	—
3	15k RGB (60 Hz)		15.73	59.94	S on G	—
4	15k RGB (50 Hz)		15.63	50.00	S on G	—
5	HDTV		33.75	60.00	S on Y/G	1235
6	640 x 350	VGA-1 (VGA350)	31.47	70.09	H-pos V-neg	800
7		VESA* 85(VGA350)	37.86	85.08	H-pos V-neg	832
8	640 x 400	NEC PC98	24.82	54.42	H-neg V-neg	848
9		VGA-2 (TEXT) /VESA70	31.47	70.09	H-neg V-pos	800
10		VESA 85 (VGA400)	37.86	85.08	H-neg V-pos	832
11	640 x 480	VGA VESA60	31.47	59.94	H-neg V-neg	800
12		Mac 13	35.00	66.67	S on G	—
13		VGA VESA 72	37.86	72.81	H-neg V-neg	832
14		VGA VESA 75 (IBM M3)	37.50	75.00	H-neg V-neg	840
15		VGA VESA 85 (IBM M4)	43.27	85.01	H-neg V-neg	832
16	800 x 600	SVGA VESA 56	35.16	56.25	H-pos V-pos	1024
17		SVGA VESA 60	37.88	60.32	H-pos V-pos	1056
18		SVGA VESA 72	48.08	72.19	H-pos V-pos	1040
19		SVGA VESA 75 (IBM M5)	46.88	75.00	H-pos V-pos	1056
20		SVGA VESA 85	53.67	85.06	H-pos V-pos	1048
21	832 x 624	Mac 16	49.72	74.55	H-neg V-neg	1152
22	1024 x 768	XGA VESA 43 (8514)	35.52	86.96	H-pos V-pos	1264
23		XGA VESA 60	48.36	60.00	H-neg V-neg	1344
24		XGA VESA 70	56.48	69.96	H-neg V-neg	1328
25		XGA VESA 75	60.02	75.03	H-pos V-pos	1312
26		XGA VESA 85	68.68	85.00	H-pos V-pos	1376
27	1152 x 864	VESA 70	64.00	70.02	H-pos V-pos	1308
28		VESA 75	67.50	75.00	H-pos V-pos	1422
29		VESA 85	77.49	85.06	H-pos V-pos	1394
30	1152 x 900	SUN LO	61.80	65.96	H-neg V-neg	1283
31		SUN HI	71.71	76.05	C-neg	1256
32	1280 x 960	VESA 60	60.00	60.00	H-pos V-pos	1440
33		VESA 75	75.00	75.00	H-pos V-pos	1382
34	1280 x 1024	SXGA VESA 43	46.43	86.87	H-pos V-pos	1272
35		SGI-5	53.32	50.06	S on G	1260
36		SXGA VESA 60	63.97	60.01	H-pos V-pos	1272
37		SXGA VESA 75	79.98	75.03	H-pos V-pos	1266
38		SXGA VESA 85	91.15	85.02	H-pos V-pos	1296
39	1600 x 1200	UXGA VESA 60	75.00	60.00	H-pos V-pos	1352

* VESA is a registered trademark of Video Electronics Standard Association.

The SET SETTING Menu

The SET SETTING menu is used for changing the initial settings of the projector. Unadjustable items are not displayed in the menu.



Operation

1. Select an item

Use the ↑ or ↓ key to select the item, then press the → key or the ENTER key.

2. Adjust an item

• When changing the adjustment level:

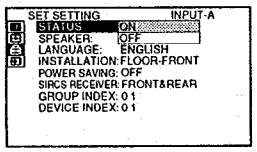
To increase the number, press the ↑ or → key.
To decrease the number, press the ↓ or ← key.
Press the ENTER key to restore the original screen.

• When changing the setting:

Press the ↑ or ↓ key to change the setting, then press the ← or the ENTER key.
The original screen is restored.

STATUS

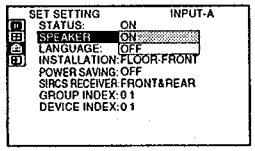
Sets up the on-screen display.



ON: Shows all of the on-screen displays.
OFF: Turns off the on-screen displays except for the menus and warning messages.

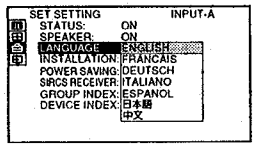
SPEAKER

Set to OFF to cut off the sound of the internal speaker when external speakers are connected. When set to OFF, "SPEAKER OFF" appears on the screen when you turn on the power.



LANGUAGE

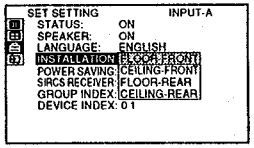
Selects the language used in the menu and on-screen displays.



Available languages are: English, French, German, Italian, Spanish, Japanese and Chinese.

INSTALLATION

Reverses the picture horizontally or vertically.



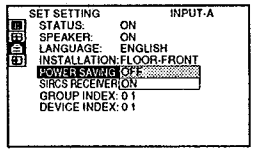
FLOOR-FRONT: The picture is not reversed.
CEILING-FRONT: The picture is reversed horizontally and vertically.
FLOOR-REAR: The picture is reversed horizontally.
CEILING-REAR: The picture is reversed vertically.

Note

In case of using a mirror, be careful of installation since the picture may be reversed.

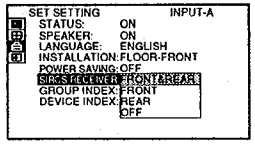
POWER SAVING

When set to ON, the projector goes into the power saving mode and the lamp for light source turns off if no signal is input for about 10 minutes.
The power saving mode is canceled when a signal is input or any key is pressed.



SIRCS RECEIVER

Selects the remote control detectors to be activated. Change the setting if the wireless Remote Commander does not work properly due to the influence of the fluorescent lamp, etc.



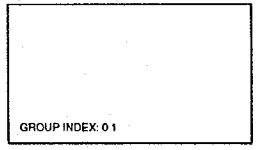
FRONT & REAR: Activates both the front and rear detectors.
FRONT: Activates the front detector only.
REAR: Activates the rear detector only.
OFF: Activates neither the front nor rear detector.

Note

When set to OFF, the wireless Remote Commander does not function. Use the keys on the control panel or the wired Remote Commander.

GROUP INDEX

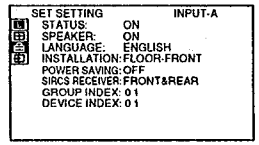
Groups multiple projectors or switchers to operate them simultaneously.



You can set the group index number to the desired number between 01 and 99.

DEVICE INDEX

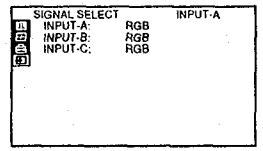
Displays the index number set with the INDEX switches on the rear of the projector. You cannot set the device index number with this menu.



For details for setting the number, see page 45 (GB).

The SIGNAL SELECT Menu

The SIGNAL SELECT Menu is used for selecting the input signal.
Depending on the interface board installed in the projector, some items may not be displayed in the menu.

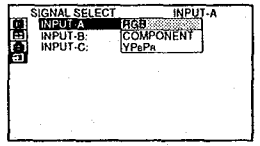


Operation

Use the ↑ or ↓ key to select the input, then press the ENTER key.

INPUT-A

Selects audio and video signals input from the INPUT A connectors. You can select the RGB, component or HDTV (YP_BP_R) signal.

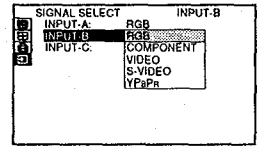


Note

When the PC-3000 signal interface switcher is connected to the INPUT A connectors, you cannot select the item.

INPUT-B

Selects the input signal from the connectors on the optional IFB-12A interface board installed in the INPUT B section. You can select the RGB, component, HDTV (YP_BP_R), video or S video signal.

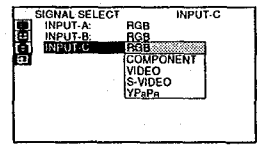


Note

This item is not displayed when the optional interface board other than the IFB-12A is installed in the INPUT B section, or when the output mode is selected on the IFB-12A.

INPUT-C

Selects the input signal from the connectors on the optional IFB-12A interface board installed in the INPUT C section. You can select the RGB, component, HDTV (YP_BP_R), video or S video signal.

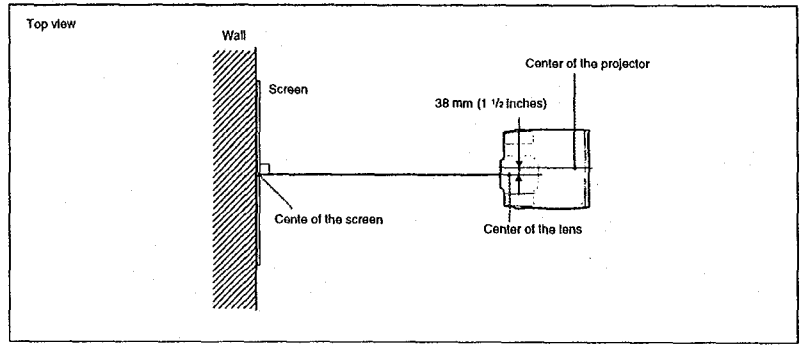


Note

This item is not displayed when the optional interface board other than the IFB-12A is installed in the INPUT C section.

Installation Examples

When you install the projector, be sure to adjust the horizontal positioning of the projector so that the center of the lens is aligned with the horizontal center of the screen.

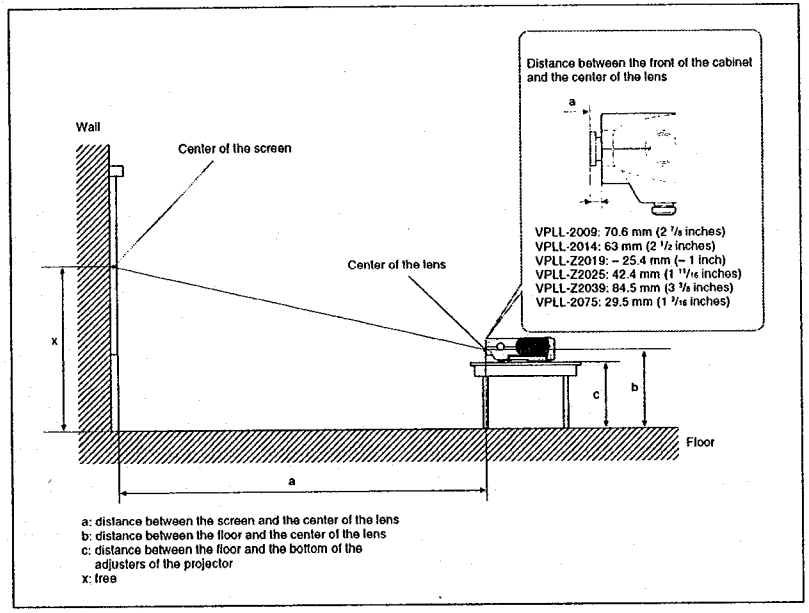


About the Picture Size

The on-screen picture size changes according to the setting of SCAN CONV in the INPUT SETTING menu. Note that the projection distance also changes depending on the picture size.

Installation Examples

Floor Installation


Distance between the front of the cabinet and the center of the lens
a
VPLL-2009: 70.6 mm (2 7/8 inches)
VPLL-2014: 63 mm (2 1/2 inches)
VPLL-Z2019: – 25.4 mm (– 1 inch)
VPLL-Z2025: 42.4 mm (1 11/16 inches)
VPLL-Z2039: 84.5 mm (3 3/8 inches)
VPLL-2075: 29.5 mm (1 3/16 inches)
Wall
Center of the screen
Center of the lens
x
c
b
Floor
a
a: distance between the screen and the center of the lens
b: distance between the floor and the center of the lens
c: distance between the floor and the bottom of the adjusters of the projector
x: free

When using the VPLL-2009 fixed short focus lens

Make sure that the center of the lens is aligned with the vertical center of the screen.

Unit: mm (inches)

Screen size (inches)		40	80	100	120	150	180	200	250	300	350	400	450	500
a		640 (25 1/4)	1410 (55 5/4)	1800 (70 7/8)	2190 (86 1/4)	2770 (109 1/8)	3350 (132)	3730 (146 7/8)	4700 (185 1/4)	5670 (223 3/4)	6630 (261 1/4)	7600 (299 1/4)	8570 (337 1/2)	9530 (375 1/4)
b	Min.	x–11 (x–7/16)	x–22 (x–7/8)	x–28 (x–1 1/8)	x–33 (x–1 5/16)	x–41 (x–1 11/16)	x–50 (x–2)	x–55 (x–2 1/4)	x–69 (x–2 3/4)	x–83 (x–3 3/8)	x–96 (x–3 7/8)	x–110 (x–4 3/8)	x–124 (x–5)	x–138 (x–5 1/2)
	Center	x												
	Max.	x+11 (x+7/16)	x+22 (x+7/8)	x+28 (x+1 1/8)	x+33 (x+1 5/16)	x+41 (x+1 11/16)	x+50 (x+2)	x+55 (x+2 1/4)	x+69 (x+2 3/4)	x+83 (x+3 3/8)	x+96 (x+3 7/8)	x+110 (x+4 3/8)	x+124 (x+5)	x+138 (x+5 1/2)
c	Min.	x–154 (x–6 1/4)	x–165 (x–6 1/2)	x–170 (x–6 3/4)	x–176 (x–7)	x–184 (x–7 1/4)	x–192 (x–7 5/8)	x–198 (x–7 7/8)	x–211 (x–8 3/8)	x–225 (x–8 7/8)	x–239 (x–9 1/2)	x–253 (x–10)	x–267 (x–10 1/2)	x–280 (x–11 1/4)
	Center	x–142 (x–5 5/8)												
	Max.	x–130 (x–5 1/4)	x–119 (x–4 3/4)	x–114 (x–4 1/2)	x–108 (x–4 3/4)	x–100 (x–4)	x–92 (x–3 5/8)	x–86 (x–3 1/2)	x–73 (x–2 7/8)	x–59 (x–2 3/8)	x–45 (x–1 13/16)	x–31 (x–1 1/4)	x–17 (x–11/16)	x–4 (x–5/32)

To calculate the installation measurement (unit: mm)

SS: screen size measured diagonally (inches)

a = (SS × 35.079/1.814) – 134

b (minimum) = x – (SS/1.814 × 0.5)

b (maximum) = x + (SS/1.814 × 0.5)

c (minimum) = x – (SS/1.814 × 0.5 + 142.5)

c (maximum) = x – (SS/1.814 × – 0.5 + 141.5)

When using the VPLL-2014 fixed short focus lens

Unit: mm (inches)

Screen size (inches)		40	80	100	120	150	180	200	250	300	350	400	450	500
a		1030 (40 5/4)	2180 (85 7/4)	2760 (108 3/4)	3330 (131 1/4)	4200 (165 3/4)	5060 (199 1/4)	5640 (222 1/4)	7080 (278 7/4)	8520 (335 1/2)	9960 (392 1/4)	11400 (448 7/8)	12840 (505 5/4)	14280 (562 3/4)
b	Min.	x–198 (x–7 7/8)	x–397 (x–15 5/8)	x–496 (x–19 5/8)	x–595 (x–23 1/2)	x–744 (x–29 3/4)	x–893 (x–35 1/4)	x–992 (x–39 1/4)	x–1240 (x–48 7/8)	x–1488 (x–58 5/8)	x–1736 (x–68 3/4)	x–1984 (x–78 1/4)	x–2232 (x–88)	x–2480 (x–97 3/4)
	Max.	x												
c	Min.	x–349 (x–13 7/4)	x–548 (x–21 3/4)	x–647 (x–25 1/2)	x–746 (x–29 1/2)	x–895 (x–35 1/4)	x–1044 (x–41 1/4)	x–1143 (x–45 1/4)	x–1391 (x–54 7/8)	x–1639 (x–64 3/4)	x–1887 (x–74 3/4)	x–2135 (x–84 1/4)	x–2383 (x–93 3/4)	x–2631 (x–103 3/4)
	Max.	x–142 (x–5 5/4)												

To calculate the installation measurement (unit: mm)

SS: screen size measured diagonally (inches)

a = (SS × 52.244/1.814) – 123

b (minimum) = x – (SS/1.814 × 9.0)

c (minimum) = x – (SS/1.814 × 9.0 + 151.0)

Installation Examples

When using the VPLL-Z2019 1.3-times zoom standard focus lens

Unit: mm (inches)

Screen size (inches)		40	80	100	120	150	180	200	250	300	350	400	450	500
a	Min.	1490 (58 3/4)	3080 (121 3/8)	3870 (152 1/2)	4670 (184)	5860 (230 3/4)	7050 (277 3/4)	7850 (309 1/8)	9840 (387 1/2)	11820 (465 1/2)	13810 (543 7/8)	15800 (622 1/8)	17790 (700 1/2)	19780 (778 7/8)
	Max.	1890 (74 1/2)	3880 (152 7/8)	4880 (192 1/4)	5870 (231 1/4)	7370 (290 1/4)	8860 (348 7/8)	9860 (388 1/4)	12350 (486 3/4)	14840 (584 3/8)	17330 (682 3/8)	19810 (780 1/8)	22300 (878 1/4)	24790 (976 1/4)
b	Min.	x–287 (x–11 3/8)	x–573 (x–22 5/8)	x–717 (x–28 1/4)	x–860 (x–33 7/8)	x–1075 (x–42 3/8)	x–1290 (x–50 7/8)	x–1433 (x–56 1/2)	x–1791 (x–70 5/8)	x–2150 (x–84 3/4)	x–2508 (x–98 3/4)	x–2866 (x–112 7/8)	x–3225 (x–127)	x–3583 (x–141 1/8)
	Max.	x												
c	Min.	x–442 (x–17 1/2)	x–728 (x–28 3/4)	x–872 (x–34 3/4)	x–1015 (x–40)	x–1230 (x–48 1/2)	x–1445 (x–57)	x–1588 (x–62 5/8)	x–1946 (x–76 3/4)	x–2305 (x–90 3/4)	x–2663 (x–104 7/8)	x–3021 (x–118 31/32)	x–3380 (x–133 1/8)	x–3738 (x–147 1/4)
	Max.	x–142 (x–5 5/8)												

To calculate the installation measurement (unit: mm)

SS: screen size measured diagonally (inches)

a (minimum) = ((SS × 70.383/1.814) – 102) × 1.025

a (maximum) = ((SS × 92.644/1.814) – 104) × 0.975

b (minimum) = x – (SS/1.814 × 13.0)

c (minimum) = x – (SS/1.814 × 13.0 + 155.0)

When using the VPLL-Z2025 1.6-times zoom long focus lens

Unit: mm (inches)

Screen size (inches)		80	100	120	150	180	200	250	300	350	400	450	500
a	Min.	3980 (156 3/4)	5020 (197 11/16)	6060 (238 5/8)	7620 (300 1/4)	9180 (361 1/2)	10220 (402 1/2)	12830 (505 1/4)	15430 (607 5/8)	18030 (709 15/16)	20630 (812 3/8)	23230 (914 3/4)	25830 (1017 1/4)
	Max.	6160 (242 5/8)	7750 (305 1/4)	9330 (367 3/8)	11710 (461 1/8)	14080 (554 1/2)	15660 (616 3/4)	19620 (772 3/4)	23580 (928 1/2)	27540 (1084 1/2)	31500 (1240 3/8)	35460 (1396 1/4)	39420 (1552 1/4)
b	Min.	x–573 (x–22 5/8)	x–717 (x–28 1/4)	x–860 (x–33 7/8)	x–1075 (x–42 3/8)	x–1290 (x–50 7/8)	x–1433 (x–56 1/2)	x–1791 (x–70 5/8)	x–2150 (x–84 3/4)	x–2508 (x–98 3/4)	x–2866 (x–112 7/8)	x–3225 (x–127)	x–3583 (x–141 1/8)
	Max.	x											
c	Min.	x–728 (x–28 3/4)	x–872 (x–34 3/4)	x–1015 (x–40)	x–1230 (x–48 1/2)	x–1445 (x–57)	x–1588 (x–62 5/8)	x–1946 (x–76 3/4)	x–2305 (x–90 3/4)	x–2663 (x–104 7/8)	x–3021 (x–118 31/32)	x–3380 (x–133 1/8)	x–3738 (x–147 1/4)
	Max.	x–142 (x–5 5/8)											

To calculate the installation measurement (unit: mm)

SS: screen size measured diagonally (inches)

a (minimum) = ((SS × 92.078/1.814) – 176) × 1.025

a (maximum) = ((SS × 147.324/1.814) – 175) × 0.975

b (minimum) = x – (SS/1.814 × 13.0)

c (minimum) = x – (SS/1.814 × 13.0 + 155.0)

When using the VPLL-Z2039 1.5-times zoom long focus lens

Unit: mm (inches)

Screen size (inches)		80	100	120	150	180	200	250	300	350	400	450	500
a	Min.	6360 (250 1/2)	7990 (314 5/8)	9620 (378 7/8)	12070 (475 3/4)	14510 (571 3/8)	16150 (636)	20220 (796 1/4)	24300 (956 7/8)	28380 (1117 1/2)	32460 (1278 1/8)	36540 (1438 7/8)	40620 (1599 1/2)
	Max.	9150 (360 3/4)	11480 (452 1/8)	13810 (543 7/8)	17300 (681 1/4)	20790 (818 3/8)	23120 (910 3/4)	28940 (1139 3/4)	34760 (1368 3/4)	40570 (1597 1/2)	46390 (1826 3/4)	52210 (2055 7/8)	58030 (2284 15/16)
b	Min.	x–573 (x–22 5/8)	x–717 (x–28 1/4)	x–860 (x–33 7/8)	x–1075 (x–42 3/4)	x–1290 (x–50 7/8)	x–1433 (x–56 1/2)	x–1791 (x–70 5/8)	x–2150 (x–84 3/4)	x–2508 (x–98 3/4)	x–2866 (x–112 7/8)	x–3225 (x–127)	x–3583 (x–141 1/4)
	Max.	x											
c	Min.	x–728 (x–28 3/4)	x–872 (x–34 3/4)	x–1015 (x–40)	x–1230 (x–48 1/2)	x–1445 (x–57)	x–1588 (x–62 5/8)	x–1946 (x–76 3/4)	x–2305 (x–90 3/4)	x–2663 (x–104 7/8)	x–3021 (x–118 31/32)	x–3380 (x–133 1/8)	x–3738 (x–147 1/4)
	Max.	x–142 (x–5 5/8)											

To calculate the installation measurement (unit: mm)

SS: screen size measured diagonally (inches)

a (minimum) = ((SS × 144.368/1.814) – 163) × 1.025

a (maximum) = ((SS × 216.549/1.814) – 163) × 0.975

b (minimum) = x – (SS/1.814 × 13.0)

c (minimum) = x – (SS/1.814 × 13.0 + 155.0)

When using the VPLL-2075 fixed long focus lens

Unit: mm (inches)

Screen size (inches)		80	100	120	150	180	200	250	300	350	400	450	500
a		12030 (473 11/16)	15000 (590 5/8)	17960 (707 1/4)	22410 (882 1/2)	26860 (1057 5/8)	29830 (1174 3/4)	37250 (1466 3/4)	44660 (1758 1/2)	52080 (2050 3/4)	59500 (2342 7/8)	66910 (2634 5/8)	74330 (2926 3/4)
b	Min.	x–573 (x–22 5/8)	x–717 (x–28 1/4)	x–860 (x–33 7/8)	x–1075 (x–42 3/8)	x–1290 (x–50 7/8)	x–1433 (x–56 1/2)	x–1791 (x–70 5/8)	x–2150 (x–84 3/4)	x–2508 (x–98 3/4)	x–2866 (x–112 7/8)	x–3225 (x–127)	x–3583 (x–141 1/4)
	Max.	x											
c	Min.	x–728 (x–28 3/4)	x–872 (x–34 3/4)	x–1015 (x–40)	x–1230 (x–48 1/2)	x–1445 (x–57)	x–1588 (x–62 5/8)	x–1946 (x–76 3/4)	x–2305 (x–90 3/4)	x–2663 (x–104 7/8)	x–3021 (x–118 31/32)	x–3380 (x–133 1/8)	x–3738 (x–147 1/4)
	Max.	x–142 (x–5 5/8)											

To calculate the installation measurement (unit: mm)

SS: screen size measured diagonally (inches)

a = (SS × 269.100/1.814) + 163

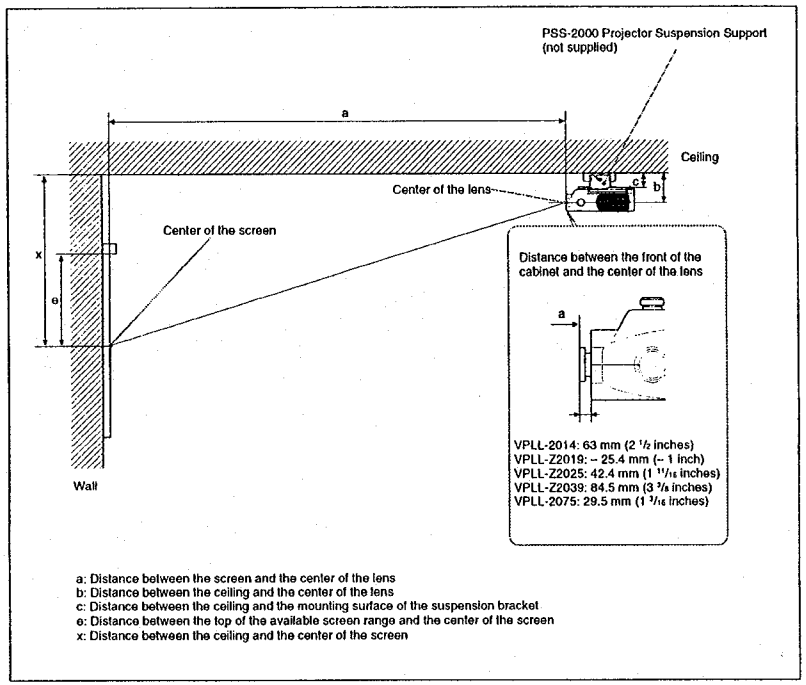
b (minimum) = x – (SS/1.814 × 13.0)

c (minimum) = x – (SS/1.814 × 13.0 + 155.0)

Installation Examples

Ceiling Installation

When installing the projector on the ceiling, use the PSS-2000 Projector Suspension Support.
For ceiling installation, ask for qualified Sony personnel only.



a: Distance between the screen and the center of the lens
b: Distance between the ceiling and the center of the lens
c: Distance between the ceiling and the mounting surface of the suspension bracket
e: Distance between the top of the available screen range and the center of the screen
x: Distance between the ceiling and the center of the screen

When using the VPLL-2014 fixed short focus lens

Unit: mm (inches)

Screen size (inches)		40	80	100	120	150	180	200	250	300	350	400	450	500
a		1030 (40 3/4)	2180 (85 7/8)	2760 (108 3/4)	3330 (131 1/8)	4200 (165 3/8)	5060 (199 1/4)	5640 (222 1/8)	7080 (278 7/8)	8520 (335 1/2)	9960 (392 1/4)	11400 (448 7/8)	12840 (505 3/8)	14280 (562 3/8)
b	Min.	c+131 (c+5 1/4)												
	Max.	c+140 (c+5 1/2)												
e		305 (12 1/4)	610 (24 1/8)	762 (30)	914 (36)	1143 (45)	1372 (54 1/4)	1524 (60)	1905 (75 1/8)	2286 (90 1/4)	2667 (105 1/8)	3048 (120 1/16)	3429 (135 1/4)	3810 (150 1/8)
x	Min.	c+131 (c+5 1/4)												
	Max.	c+338 (c+13 3/8)	c+536 (c+21 1/8)	c+636 (c+25 1/8)	c+735 (c+29)	c+884 (c+34 7/8)	c+1033 (c+40 3/4)	c+1132 (c+44 5/8)	c+1380 (c+54 3/8)	c+1628 (c+64 1/8)	c+1876 (c+73 7/8)	c+2124 (c+83 3/4)	c+2372 (c+93 1/2)	c+2620 (c+103 1/4)

When using the PSS-2000 Projector Suspension Support: c =104.7 (4 1/8), x (minimum) = e

To calculate the installation measurement (unit: mm)

SS: screen size measured diagonally (inches)
a = (SS × 52.244/1.814) – 123
e = SS × 0.3 × 25.4
x (maximum) = c + (SS/1.814 × 9.0 + 139.6)

When using the VPLL-Z2019 1.3-times zoom standard focus lens

Unit: mm (inches)

Screen size (inches)		40	80	100	120	150	180	200	250	300	350	400	450	500
a	Min.	1490 (58 3/4)	3080 (121 3/4)	3870 (152 1/2)	4670 (184)	5860 (230 3/4)	7050 (277 1/8)	7850 (309 1/4)	9840 (387 1/2)	11820 (465 1/2)	13810 (543 7/8)	15800 (622 1/8)	17790 (700 1/2)	19780 (778 7/8)
	Max.	1890 (74 1/2)	3880 (152 7/8)	4880 (192 1/4)	5870 (231 1/4)	7370 (290 1/4)	8860 (348 7/8)	9860 (388 1/4)	12350 (486 3/8)	14840 (584 7/8)	17330 (682 3/4)	19810 (780 1/8)	22300 (878 1/4)	24790 (976 1/4)
b	Min.	c+131 (c+5 1/4)												
	Max.	c+144 (c+5 3/4)												
e		305 (12 1/4)	610 (24 1/4)	762 (30)	914 (36)	1143 (45)	1372 (54 1/4)	1524 (60)	1905 (75 1/8)	2286 (90 1/8)	2667 (105 1/4)	3048 (120 1/16)	3429 (135 1/4)	3810 (150 1/4)
x	Min.	c+131 (c+5 1/4)												
	Max.	c+430 (c+17)	c+717 (c+28 1/4)	c+860 (c+33 7/8)	c+1003 (c+39 1/2)	c+1218 (c+48)	c+1433 (c+56 1/2)	c+1577 (c+62 1/8)	c+1935 (c+76 1/4)	c+2293 (c+90 3/8)	c+2652 (c+104 1/2)	c+3010 (c+118 5/32)	c+3368 (c+132 5/8)	c+3726 (c+146 3/4)

When using the PSS-2000 Projector Suspension Support: c =104.7 (4 1/8), x (minimum) = e

To calculate the installation measurement (unit: mm)

SS: screen size measured diagonally (inches)
a (minimum) = ((SS × 70.383/1.814) – 102) × 1.025
a (maximum) = ((SS × 92.644/1.814) – 104) × 0.975
e = SS × 0.3 × 25.4
x (maximum) = c + (SS/1.814 × 13.0 + 143.6)

Installation Examples

When using the VPLL-Z2025 1.6-times zoom long focus lens

Unit: mm (inches)

Screen size (inches)		80	100	120	150	180	200	250	300	350	400	450	500
a	Min.	3980 (156 3/4)	5020 (197 11/16)	6060 (238 3/4)	7620 (300 1/8)	9180 (361 1/2)	10220 (402 1/2)	12830 (505 1/4)	15430 (607 3/4)	18030 (709 15/16)	20630 (812 3/4)	23230 (914 3/4)	25830 (1017 1/4)
	Max.	6160 (242 5/8)	7750 (305 1/4)	9330 (367 3/4)	11710 (461 1/4)	14080 (554 1/2)	15660 (616 5/8)	19620 (772 5/8)	23580 (928 1/2)	27540 (1084 1/2)	31500 (1240 3/8)	35460 (1396 1/4)	39420 (1552 1/4)
b	Min.	c+131 (c+5 1/4)											
	Max.	c+144 (c+5 3/4)											
e		610 (24 1/4)	762 (30)	914 (36)	1143 (45)	1372 (54 1/4)	1524 (60)	1905 (75 1/8)	2286 (90 1/4)	2667 (105 1/4)	3048 (120 1/16)	3429 (135 1/4)	3810 (150 1/8)
x	Min.	c+131 (c+5 1/4)											
	Max.	c+717 (c+28 1/4)	c+860 (c+33 7/8)	c+1003 (c+39 1/2)	c+1218 (c+48)	c+1433 (c+56 1/2)	c+1577 (c+62 1/8)	c+1935 (c+76 1/4)	c+2293 (c+90 3/8)	c+2652 (c+104 1/2)	c+3010 (c+118 5/32)	c+3368 (c+132 5/8)	c+3726 (c+146 3/4)

When using the PSS-2000 Projector Suspension Support: c =104.7 (4 1/4), x (minimum) ≈ e

To calculate the installation measurement (unit: mm)

SS: screen size measured diagonally (inches)
a (minimum) = ((SS × 92.078/1.814) – 176) × 1.025
a (maximum) ≈ ((SS × 147.324/1.814) – 175) × 0.975
e = SS × 0.3 × 25.4
x (maximum) ≈ c + (SS/1.814 × 13.0 + 143.6)

When using the VPLL-Z2039 1.5-times zoom long focus lens

Unit: mm (inches)

Screen size (inches)		80	100	120	150	180	200	250	300	350	400	450	500
a	Min.	6360 (250 1/2)	7990 (314 5/8)	9620 (378 7/8)	12070 (475 3/8)	14510 (571 3/8)	16150 (636)	20220 (796 1/4)	24300 (956 7/8)	28380 (1117 1/2)	32460 (1278 1/8)	36540 (1438 7/8)	40620 (1599 1/2)
	Max.	9150 (360 3/4)	11480 (452 1/4)	13810 (543 7/8)	17300 (681 1/4)	20790 (818 3/4)	23120 (910 3/4)	28940 (1139 5/8)	34760 (1368 3/4)	40570 (1597 1/2)	46390 (1826 5/8)	52210 (2055 7/8)	58030 (2284 15/16)
b	Min.	c+131 (c+5 1/4)											
	Max.	c+144 (c+5 3/4)											
e		610 (24 1/4)	762 (30)	914 (36)	1143 (45)	1372 (54 1/4)	1524 (60)	1905 (75 1/8)	2286 (90 1/4)	2667 (105 1/4)	3048 (120 1/16)	3429 (135 1/4)	3810 (150 1/8)
x	Min.	c+131 (c+5 1/4)											
	Max.	c+717 (c+28 1/4)	c+860 (c+33 7/8)	c+1003 (c+39 1/2)	c+1218 (c+48)	c+1433 (c+56 1/2)	c+1577 (c+62 1/8)	c+1935 (c+76 1/4)	c+2293 (c+90 3/8)	c+2652 (c+104 1/2)	c+3010 (c+118 5/32)	c+3368 (c+132 5/8)	c+3726 (c+146 3/4)

When using the PSS-2000 Projector Suspension Support: 104.7 (4 1/4), x (minimum) = e

To calculate the installation measurement (unit: mm)

SS: screen size measured diagonally (inches)
a (minimum) = ((SS × 144.368/1.814) – 163) × 1.025
a (maximum) = ((SS × 216.549/1.814) – 163) × 0.975
e = SS × 0.3 × 25.4
x (maximum) = c + (SS/1.814 × 13.0 + 143.6)

When using the VPLL-2075 fixed long focus lens

Unit: mm (inches)

Screen size (inches)		80	100	120	150	180	200	250	300	350	400	450	500
a		12030 (473 11/16)	15000 (590 3/4)	17960 (707 1/4)	22410 (882 1/2)	26860 (1057 5/8)	29830 (1174 5/8)	37250 (1466 3/4)	44660 (1758 1/2)	52080 (2050 3/4)	59500 (2342 7/8)	66910 (2634 5/8)	74330 (2926 3/4)
b	Min.	c+131 (c+5 1/4)											
	Max.	c+144 (c+5 3/4)											
e		610 (24 1/4)	762 (30)	914 (36)	1143 (45)	1372 (54 1/4)	1524 (60)	1905 (75 1/8)	2286 (90 1/4)	2667 (105 1/4)	3048 (120 1/16)	3429 (135 1/4)	3810 (150 1/8)
x	Min.	c+131 (c+5 1/4)											
	Max.	c+717 (c+28 1/4)	c+860 (c+33 7/8)	c+1003 (c+39 1/2)	c+1218 (c+48)	c+1433 (c+56 1/2)	c+1577 (c+62 1/8)	c+1935 (c+76 1/4)	c+2293 (c+90 3/8)	c+2652 (c+104 1/2)	c+3010 (c+118 5/32)	c+3368 (c+132 5/8)	c+3726 (c+146 3/4)

When using the PSS-2000 Projector Suspension Support: c =104.7 (4 1/4), x (minimum) = e

To calculate the installation measurement (unit: mm)

SS: screen size measured diagonally (inches)
a = (SS × 269.100/1.814) + 163
e = SS × 0.3 × 25.4
x (maximum) = c + (SS/1.814 × 13.0 + 143.6)

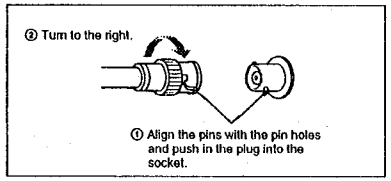
Connection Examples

For details on how to connect a computer, VCR or external active speakers, see page 20 (GB). Also refer to the instruction manual of the equipment to be connected.

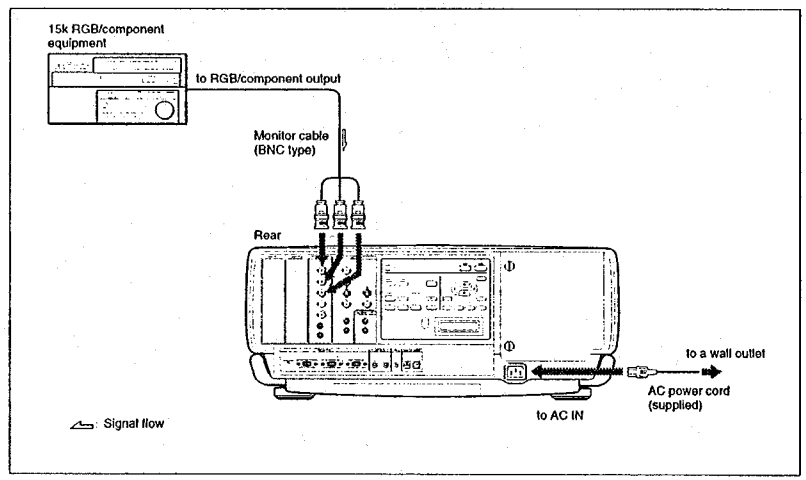
When making connections, be sure to:

- turn off all equipment before making any connections.
- use the proper cables for each connection.
- insert the plugs of the cables properly; plugs that are not fully inserted may generate noise. When pulling out a cable, be sure to pull it out from the plug, not the cable itself.

Connecting a BNC connector



Connecting 15k RGB/Component Equipment



Note

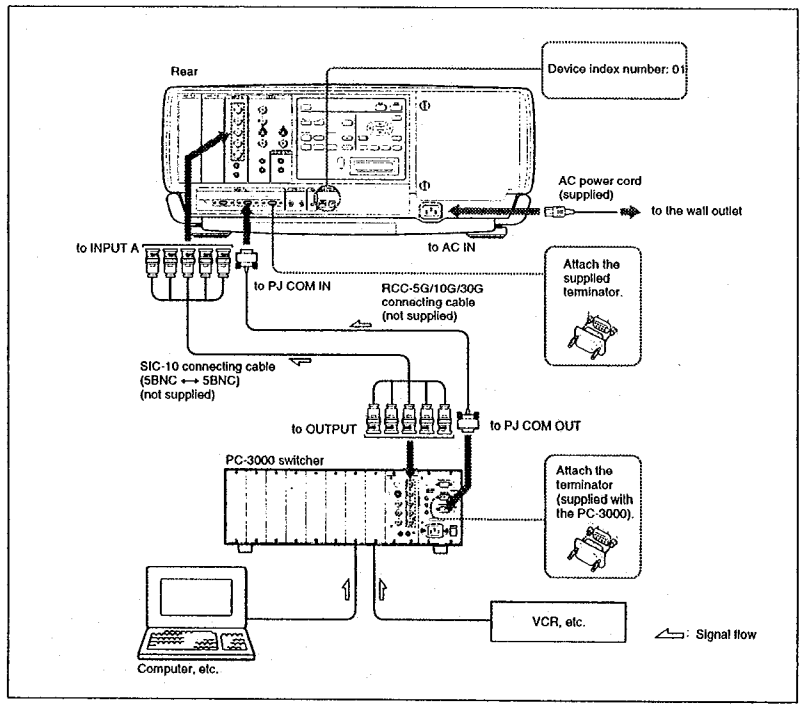
Switch the input signal with the INPUT-A item in the SIGNAL SELECT menu.
For details, see page 32 (GB).

Connecting the Switcher

Use the optional PC-3000 Signal Interface Switcher for connecting various video equipment. The input can be selected by pressing the SWITCHER/VIDEO MEMORY/INDEX keys on the Remote Commander.
For selecting the input from the switcher, see page 15 (GB).

Notes

- When you select the input from the switcher, be sure to set the SWITCHER/VIDEO MEMORY/INDEX select switch to the SWITCHER position.
- When connecting the switcher, use the wired Remote Commander. If you use the wireless Remote Commander, activate the remote control detector on only one unit of the equipment connected through the PJ COM connector. For the other equipment, set SIRCS RECEIVER in the SET SETTING menu to OFF to deactivate the remote control detectors.
For details, see page 31 (GB).
- After all the connections are complete, attach the terminator (supplied) to the PJ COM connector on both the projector and switcher to which nothing is connected.



Confirming the System Construction

After all the connections are complete, confirm that equipment of the system is properly setup.

1 Connect the AC cords of all equipment to the AC outlets.

2 Press the SYS SET key on the Remote Commander.
You can also press the LIGHT and RESET keys simultaneously on the control panel for the same effect.
Information on the system construction and the settings of the interface boards, etc. are automatically confirmed. Then the message disappears.

Note

When you want to use the projector without connecting the switcher after using the switcher in the system connections, it is necessary to confirm the system construction again by pressing the SYS SET key or the LIGHT and RESET keys after all the connections are complete. If you press the key(s), "Master Switcher not exist" appears, but the system construction is automatically recognized.

When a system error is detected

The following messages are displayed on the screen and display window:

Message	Remedy
Master Switcher not exist.	Set the switcher that outputs the signal to the projector to number 1.
Same DEVICE INDEX for Projector detected.	Change either number of the projectors that have the same number.
Same DEVICE INDEX for Switcher detected.	Change either number of the switchers that have the same number.

Note

If the switcher is in standby mode, the message appears only in the message display window.

Setting the Index Numbers

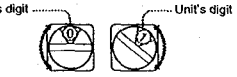
When you connect multiple projectors in your system, you have to set the group index and device index numbers for each projector.

To set the group index number

If you set the same group index number for multiple projectors, you can operate multiple projectors and switchers simultaneously (such as input selection) by designating the number.
The group index number can be set in the menu.
For group index number setting, see page 31 (GB).

To set the device index number

If you set the device index number, you can control each projector individually with the supplied Remote Commander.
The device index number can be set with the DEVICE INDEX switches on the rear of the projector. It is set to "01" at the factory.
If only one projector is connected, set it to "01."



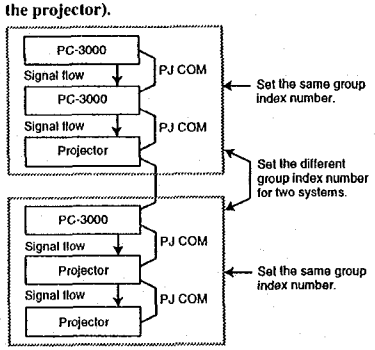
Notes

- Do not set the same device index number for the projectors in the same system.
- Do not set the number to "00." If you do, the projector will be operated only with the keys on the control panel. It cannot be controlled with the wired or wireless Remote Commander, or with an external equipment to which the PJ COM connectors are connected.

Setting the Index Numbers

Notes on setting of the index number

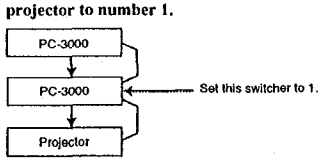
- **Set the same group index number for all equipment of the same system connection (those on the signal route between the signal source and the projector).**



For setting the group index number, see "GROUP INDEX" on page 31 (GB).

- **Set the correct group and device index numbers and the switcher number.**
  Do not set the same device index number or the same switcher number in one group.
  For example, if there are different pieces of equipment with the switcher number 1, the error message will appear when the SYS SET key is pressed.

- **Set the switcher that outputs the signal to the projector to number 1.**

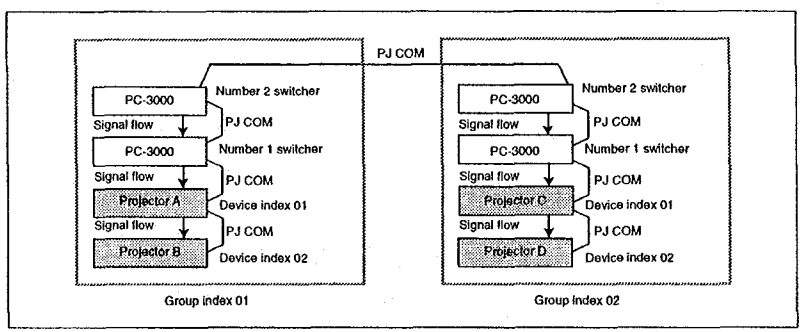


Notes on connections when two or more switchers are used

- **Mount the IFB-12A interface board to the slot 1 of the number n switcher and connect the output connector of the number (n+1) switcher to the IFB-12A.**
- **You can attach the IFB-12A signal interface board (when the IN/OUT switch is set to OUT) only to the number 1 switcher.**

To select the projector by designating the index numbers

When the switchers and projectors are connected as illustrated, select the desired projector by pressing the keys on the Remote Commander as shown below.



Example:
To select all the projectors
GROUP → ALL → ENTER → ALL → ENTER
Projectors A, B, C and D are selected.

To select projectors with device index 01 from all the groups
GROUP → ALL → ENTER → 1 → ENTER
Projectors A and C are selected.

To select a projector with device index 01 from group index 02
GROUP → 2 → ENTER → 1 → ENTER
Projector C is selected.

To select all the projectors from group index 02
GROUP → 2 → ENTER → ALL → ENTER
Projectors C and D are selected.

Notes

- Set the group index and device index numbers correctly. If more than two projectors are set to the same group index and device index numbers, an error message will be displayed when the SYS SET key is pressed.
- If the group index is a tens digit number, press the GROUP key before each press of the number key.
  Example:
  To select a projector with device index 13 of group index 12
  GROUP → 1 → GROUP → 2 → ENTER → 1 → 3 → ENTER

Maintenance

Replacing the Lamp

When the lamp has burnt out, the LAMP FAIL indicators at the rear of the projector light. In this case, replace the lamp with a new LMP-Q2000 Projector Lamp (not supplied).

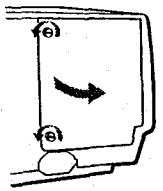
Note

Immediately after turning off the power, the lamp is extremely hot. Wait at least one hour before changing the lamp to give it enough time to cool down.

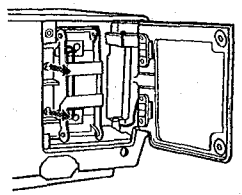
To remove the lamp

1 Press the STANDBY key to set the projector to standby mode, and unplug the power cord.

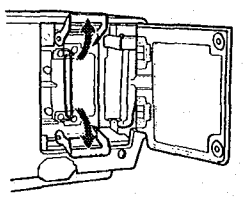
2 Remove the two screws with a coin or similar object, or a screwdriver, to open the lamp cover.



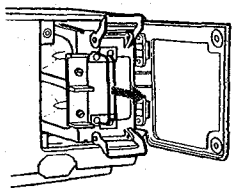
3 Loosen the two screws that fasten the lamp.



4 Fold out the levers up and down.

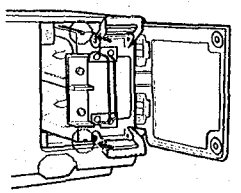


5 Pull out the lamp by holding the handles.

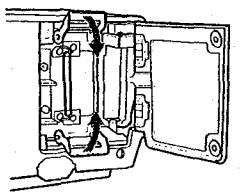


To install a new lamp

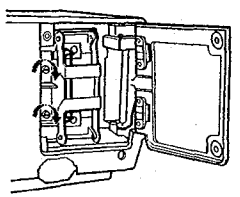
1 Mount the lamp with the grooves on the top and bottom aligned with the guides on the projector.



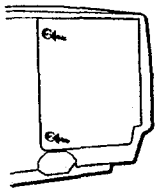
2 Push the lamp completely until it clicks. Fold down the levers to fix the lamp to the projector.



3 Tighten the two screws to secure the lamp.



4 Replace the lamp cover and push to tighten the two screws to fix the cover.



To reset the use time of the lamps in the message display window

1 Plug in the power cord and set the projector to standby mode.

2 Press the LIGHT, ←, → and ENTER keys on the control panel in sequence. Press each key within 5 seconds.

```
TIMER RESET?
LAMP: 1
```

3 Press the ↑ or ↓ key to display ALL.

```
TIMER RESET?
LAMP: ALL
```

4 Press the ENTER key.

```
TIMER RESET??
LAMP: ALL
```

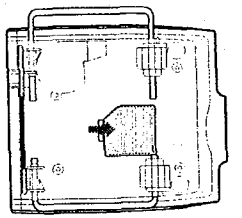
5 Press the ENTER key again to reset the time. The reset mode will be automatically cancelled.

Cleaning the Air Filter

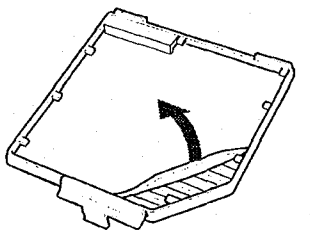
The air filter should be cleaned in every 100 hours. When it becomes difficult to remove the dust from the filter, replace the filter with a new one.

1 Turn off the power of the projector and unplug the power cord.

2 Remove the air filter cover on the bottom of the projector.



3 Remove the air filter.



4 Remove the dust from the filter with a vacuum cleaner.

5 Attach the air filter and replace the cover.

Notes

- If the air filter is excessively dirty, wash it with mild detergent solution and dry it in a shaded place.
- Be sure to attach the air filter cover firmly; the power will not be turned on if it is not closed securely.

Troubleshooting

If the projector appears to be operating erratically, try to diagnose and correct the problem, using the following guide. If the problem still persists, consult with qualified Sony personnel.

Symptom	Cause	Remedy
The power is not turned on.	The power has been turned off and on with the ON key at a short interval.	Wait for about 30 seconds before turning on the power *(see page 10 (GB))*.
	The lamp cover is detached.	Attach the lamp cover securely.
	The air filter cover is detached.	Attach the air filter cover securely *(see page 49 (GB))*.
No picture and no sound.	Cable is disconnected.	Check that the proper connections have been made *(see pages 20 (GB), 42 (GB) and 43 (GB))*.
	Input selection is not correct.	Select the input source correctly in the SIGNAL SELECT menu *(see page 32 (GB))*.
No picture or no sound.	Either the picture or the sound is cut off.	Press the MUTING key to cancel the muting function *(see page 10 (GB))*.
The picture is noisy.	Noise may appear on the background depending on the combination of the numbers of dot input from the connector and numbers of pixel on the LCD panel.	Change the desktop pattern on the connected computer.
When inputting sound through the INPUT A/B/C connector, sound comes through one channel only.	Monaural sound is being input through the INPUT A/B/C connector.	Input stereo sound.
The picture from INPUT A/B/C connector is colored strange.	Setting for INPUT-A, INPUT-B or INPUT-C in the SIGNAL SELECT menu is incorrect.	Set INPUT-A, INPUT-B or INPUT-C in the SIGNAL SELECT menu correctly according to the input signal *(see page 32 (GB))*.
"Please check INPUT-A in SIGNAL SELECT" appears in spite of inputting the correct signal from INPUT A.	Setting for INPUT-A in the SIGNAL SELECT menu is incorrect.	Set INPUT-A in the SIGNAL SELECT menu correctly according to the input signal *(see page 32 (GB))*.
"Please check INPUT-B in SIGNAL SELECT" appears in spite of inputting the correct signal from INPUT B.	Setting for INPUT-B in the SIGNAL SELECT menu is incorrect.	Set INPUT-B in the SIGNAL SELECT menu correctly according to the input signal *(see page 32 (GB))*.
"Please check INPUT-C in SIGNAL SELECT" appears in spite of inputting the correct signal from INPUT C.	Setting for INPUT-C in the SIGNAL SELECT menu is incorrect.	Set INPUT-C in the SIGNAL SELECT menu correctly according to the input signal *(see page 32 (GB))*.
"NO INPUT" appears when 15k RGB or component signal is input.	The sync signal is incorrect.	Input the correct sync singal (composite sync or sync on G singal (sync on Y for component singal)).
On-screen displays do not appear.	STATUS in the SET SETTING menu is set to OFF.	Set STATUS in the SET SETTING menu to ON *(see page 30 (GB))*.
Color balance is not correct.	Picture has not been adjusted properly.	Adjust the picture *(see pages 25 and 26 (GB))*.
	The color system of the input signal is not set correctly.	Set COLOR SYS in the PICTURE CTRL menu to match the color system of the input *signal (see page 26 (GB))*.
The picture is too dark.	The lamp is nearing the end of its life.	Replace the lamp with a new one *(see page 48 (GB))*.
	Contrast or brightness has not been adjusted properly.	Adjust CONTRAST or BRIGHT in the PICTURE CTRL menu properly *(see page 25 (GB))*.
The picture is not clear.	The picture is out of focus.	Adjust the focus *(see page 22 (GB))*.
	Moisture condensation has occurred on the lens.	Leave the projector for about two hours with the power on *(see page 18 (GB))*.

Symptom	Cause	Remedy
The Remote Commander does not work.	The batteries are exhausted.	Replace the batteries with new ones *(see page 17 (GB))*.
	The remote commander cable is connected to the Remote Commander although you are using it as a wireless Remote Commander.	Disconnect the remote control cable.
	The fluorescent lamp influences on the Remote Commander detector.	Change the setting of SIRCS RECEIVER in the SET SETTING menu *(see page 31 (GB))*.
	You have selected a wrong index number.	Select the correct index number *(see pages 31 (GB) and 45 (GB))*.
	You have set the index number to "00".	Select the correct index number *(see page 45 (GB))*.
The wireless Remote Commander does not function.	The SIRCS RECEIVER setting is not correct.	Change the setting of SIRCS RECEIVER in the SET SETTING menu *(see page 31 (GB))*.
INPUT A cannot be selected.	The switcher is not connected, but is recognized to be connected.	If the PJ COM connector is connected to something other than the terminator, remove it then press the SYS SET key.
The COVER FAIL indicator lights.	The lamp cover or air filter cover is detached.	Attach the lamp cover or air filter cover securely *(see pages 48 (GB) and 49 (GB))*.
The LAMP FAIL indicator lights.	The lamp with the same number of the indicator has reached the end of its life.	Replace the lamp *(see page 48 (GB))*.
The FAN indicator lights.	The fan is broken.	Consult with qualified Sony personnel.
The HIGH TEMP indicator lights.	The internal temperature is unusually high.	Check to see if nothing is blocking the ventilation holes.
When you press the ZOOM, SHIFT or FOCUS key, "LENS CONTROL is locked! Do you wish to unlock ?" appears.	The lens control function is locked.	Consult with qualified Sony service personnel.

Caution messages

Use the list below to check the meaning of the messages displayed on the screen.

Message	Meaning	Remedy
High Temperature! Power off in 1 min.	Internal temperature becomes too high.	Turn off the power. (If not, the power is automatically turned off about one minute later.) Check to see if nothing is blocking the ventilation holes.
Frequency is out of range!	The frequency of the input signal is out of the acceptable range.	Input a signal that is within the range of the frequency.
Please check INPUT-A in SIGNAL SELECT.	You have input the RGB signal from the computer when INPUT-A in the SIGNAL SELECT menu is set to COMPONENT or $Y P_B P_R$.	Set INPUT-A correctly.
Please check INPUT-B in SIGNAL SELECT.	You have input the RGB signal from the computer when INPUT-B in the SIGNAL SELECT menu is set to COMPONENT or $Y P_B P_R$.	Set INPUT-B correctly.
Please check INPUT-C in SIGNAL SELECT.	You have input the RGB signal from the computer when INPUT-C in the SIGNAL SELECT menu is set to COMPONENT or $Y P_B P_R$.	Set INPUT-C correctly.

Specifications

Optical characteristics

Projection system: 3 LCD panels, 1 lens, 3-primary color optical shutter system
LCD panel: 1.8-inch XGA LCD panel, 2,359,296 pixels (786,432 pixels × 3)
Lens: Option
Light output: ANSI lumen[1] 2,400 lm
Lamp: 120 W UHP × 4

Electrical characteristics

Color system: NTSC3.58/PAL/SECAM/NTSC4.43/PAL-M system, switched automatically
Resolution: 600 horizontal TV lines (video input)
1024 × 768 dots (RGB input)
Acceptable computer signal
fH: 15 to 94 kHz
fV: 40 to 120 Hz
Speakers: Max. 5 W + 5 W, 90 × 50 mm (3 5/8 × 2 inches), stereo

Input/Output

CONTROL S: IN/PLUG IN POWER: Stereo minijack, 5 Vp-p, plug in power, DC 5 V, maximum output 60 mA
OUT: Stereo minijack, 5 Vp-p
REMOTE RS-232C/422A
D-sub 9-pin (female)
(For details, see "Pin assignment" on page 54 (GB).)
PJ COM: IN: D-sub 9-pin (male)
OUT: D-sub 9-pin (female)
(For details, see "Pin assignment" on page 54 (GB).)
TRIG: Minijack
Power on: DC 12 V, output impedance: 4.7 kilohms
Power off: 0 V

S VIDEO (priority to Y IN/C IN) (only for VPL-X2000U/X2000M)
IN: Mini DIN 4-pin type (male)
Y (luminance): 1 Vp-p ± 2 dB sync negative, 75 ohms terminated
C (chrominance): Burst 0.286 Vp-p ± 2 dB (NTSC), 75 ohms terminated
Burst 0.3 Vp-p ± 2 dB (PAL), 75 ohms terminated
OUT: Loop-through mini DIN 4-pin type (male)
Loop-through output from the S VIDEO IN connector
Y IN: BNC type
1 Vp-p ± 2 dB sync negative, 75 ohms terminated
C IN: BNC type
Burst 0.286 Vp-p ± 2 dB (NTSC), 75 ohms terminated
Burst 0.3 Vp-p ± 2 dB (PAL), 75 ohms terminated
VIDEO (only for VPL-X2000U/X2000M)
IN: BNC type
Composite video, 1 Vp-p ± 2 dB sync negative, 75 ohms terminated
OUT: Loop-through BNC type
Loop-through output from the VIDEO IN connector
AUDIO IN (only for VPL-X2000U/X2000M)
Phono type (stereo)
500 mVrms, impedance more than 47 kilohms
INPUT A: Analog RGB/component: BNC type
R/R-Y: 0.7 Vp-p ± 2 dB positive, 75 ohms terminated
G: 0.7 Vp-p ± 2 dB positive, 75 ohms terminated
G with sync/Y: 1 Vp-p ± 2 dB sync negative, 75 ohms terminated
B/B-Y: 0.7 Vp-p ± 2 dB positive, 75 ohms terminated
SYNC/HD: Composite sync: 0.6–8 Vp-p, high impedance, sync positive/negative
Horizontal sync: 0.6–8 Vp-p, high impedance, sync positive/negative
VD: Vertical sync: 0.6–8 Vp-p, high impedance, sync positive/negative
AUDIO IN: Phono type (stereo)
500 m Vrms, impedance more than 47 kilohms
HDTV (Y/PB/PR): BNC type
Y: 1 Vp-p ± 2dB positive, 75 ohms
Tri-level sync: ± 0.3 Vp-p
Bi-level sync: 0.3 Vp-p
PB/PR: 0.35 Vp-p ± 2dB positive, 75 ohms
HDTV (GBR): BNC type
G with sync: 1 Vp-p ± 2 dB, 75 ohms
Tri-level sync: ± 0.3 Vp-p
Bi-level sync: 0.3 Vp-p
B/R: 0.7 Vp-p ± 2dB positive, 75 ohms
AUDIO OUT (variable out)
Phono type, Max. 1 Vrms
When input is 500 mVrms: impedance less than 5 kilohms
Safety regulations
VPL-X2000U: UL1950, c-UL (CSA No. 950), FCC Class A, IC Class A
VPL-X2000E/X2000M: EN60 950 (TÜV), CE, C-Tick

General

Dimensions: 562 × 237 × 649 mm (22 1/4 × 9 3/8 × 25 5/8 inches) (w/h/d)
Mass: Approx. 34.5 kg (76 lb 1 oz) (excluding the optional lens)
Power requirements
VPL-X2000U: AC 100 to 120 V/ 220 to 240 V, 50/60 Hz[1]
VPL-X2000E/X2000M: AC 220 to 240 V, 50/60 Hz
Power consumption
Approx. 770 W (Standby mode: 15W for VPL-X2000U/X2000M, 20 W for VPL-X2000E)
Heat dissipation: 2628 BTU
Operating temperature
0°C to 40°C (32°F to 104°F)
Operating humidity
35% to 85% (no condensation)
Storage temperature
–20°C to +60°C (–4°F to +140°F)
Storage humidity: 10% to 90%
Supplied Accessories
Remote Commander RM-PJ1001 (1)
Size AA (R6) batteries (3)
Remote commander cable (stereo) (15 m) (1)
AC power cord (1)
Terminator for the PJ COM connector (1)
Lens ring (1)
Operating Instructions (1)
Installation Manual for Dealers (1)
Warranty (only for VPL-X2000U) (1)

Design and specifications are subject to change without notice.

Optional accessories

Projector Lamp LMP-Q2000 (for replacement)
Interface Board
IFB-12A (Analog RGB/component/HDTV/ composite video/S video input with 5BNC type connectors)
IFB-20 (Analog RGB input with D-sub 9-pin type connector)
IFB-21 (Analog RGB input/output with HD D-sub 15-pin type connector)
IFB-30 (Digital RGB input with D-sub 9-pin type connector)
IFB-50 (serial digital video input/output with BNC type connector)
IFB-1000 (Composite video input with BNC type connector/S video input with mini DIN 4-pin type connector)
IFB-X2000E (Composite video input with phono jacks/S video input with mini DIN 4-pin type connector) (only for VPL-X2000E)
Signal Interface Switcher PC-3000
Interface Unit IFU-1271/1271M
SIC Cable
SIC-10/20A/20C/21/22/23/24/24A/25/26/26A/30/31/M1/M5/M15/M25/M50
9-pin remote cable (for PJ COM)
RCC-5G/10G/30G

(continued)

1) ANSI lumen is a measuring method of American National Standard IT 7.228.

1) UL listed for 120 V operation.

Specifications

Monitor Cable
- SMF-400 (HD D-sub 15-pin (female) ⟷ 5BNC (female))
- SMF-401 (HD D-sub 15-pin (female) ⟷ HD D-sub 15-pin (female))

Signal Adapter
- ADP-10 (D-sub 9-pin ⟷ HD D-sub 15-pin (for SIC Cable))
- ADP-20 (Macintosh ⟷ VGA)

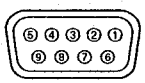
Remote Commander RM-PJ3000S
Remote Control Receiver RM-PJ10
Projection Lens
- Fixed short focus lens VPLL-2009
- Fixed short focus lens VPLL-2014
- 1.3-times zoom standard focus lens VPLL-Z2019
- 1.6-times zoom long focus lens VPLL-Z2025
- 1.5-times zoom long focus lens VPLL-Z2039
- Fixed long focus lens VPLL-2075

Projector Stand SU-PJ2000 (for stacking)
Projector Suspension Support PSS-2000
Screens
- VPS-80FH (80-inch, flat)
- VPS-100FH (100-inch, flat)
- VPS-120FH (120-inch, flat)

Some of the items may not be available in some areas. For details, please consult your nearest Sony office.

Pin assignment

RS-232C/422A connector (D-sub 9-pin, female)



RS-232C

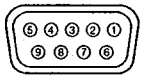
1	NC		6	DSR*	Data Set Ready
2	RD	Receive Data	7	RTS**	Request to Send
3	TD	Transmit Data	8	CTS**	Clear to Send
4	DTR*	Data Terminal Ready	9	NC	
5	GND	Ground			

* Circuit between pins 4 and 6 is short-circuited in the projector.
** Circuit between pins 7 and 8 is short-circuited in the projector.

RS-422A

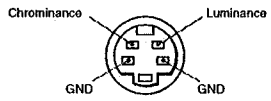
1	GND	Ground	6	GND	Ground
2	$\overline{TX}$	Transmit	7	TX	Transmit
3	RX	Receive	8	$\overline{RX}$	Receive
4	GND	Ground	9	GND	Ground
5	NC				

PJ COM connector (D-sub 9-pin, female)



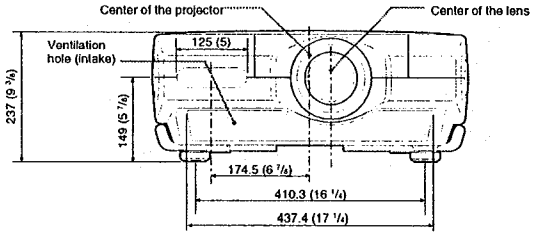
1	GND	Ground	6	GND	Ground
2	$\overline{BUSY}$	Busy	7	BUSY	Busy
3	TX/RX	Tramsmit/ Receive	8	$\overline{TX/RX}$	Tramsmit/ Receive
4	GND	Ground	9	GND	Ground
5	NC				

S VIDEO connector (mini DIN 4-pin)

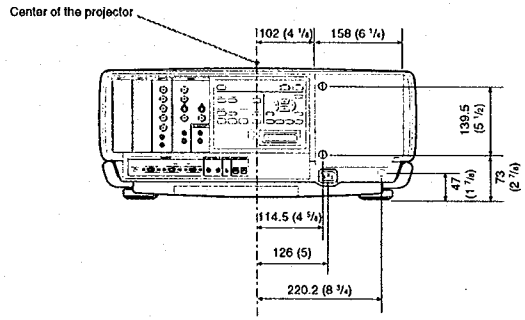


Dimensions

Front

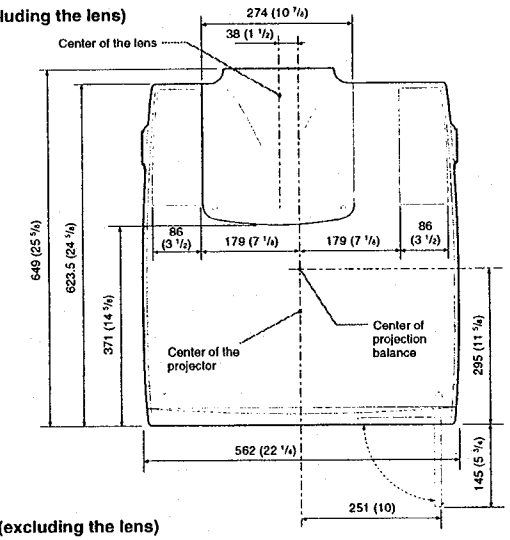


Rear

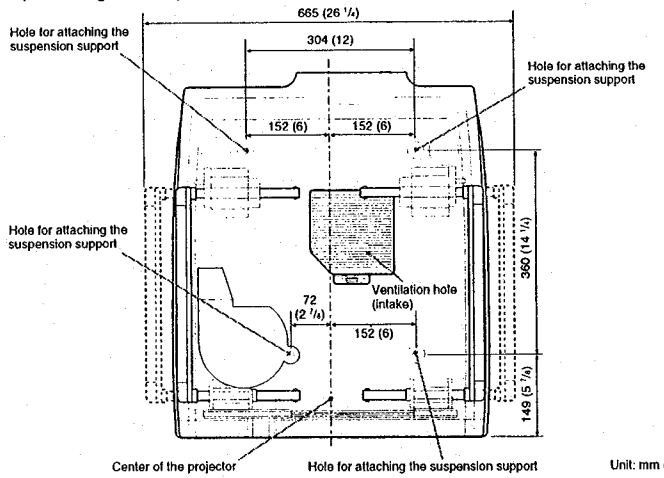


Unit: mm (inches)

Top (excluding the lens)

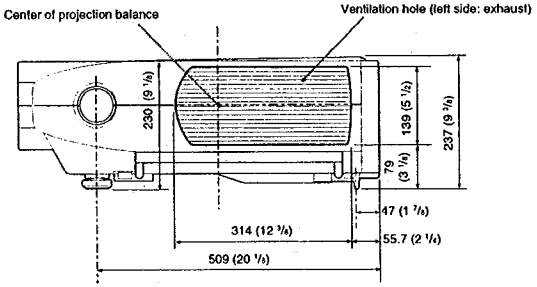


Bottom (excluding the lens)



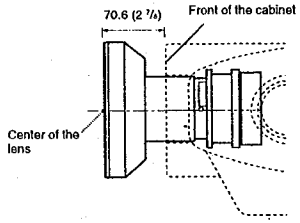
Unit: mm (inches)

Side (excluding the lens)

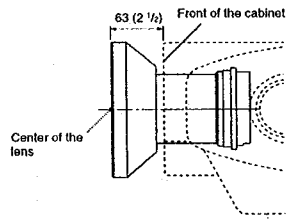


Dimensions from the front of the cabinet to the center of the lens

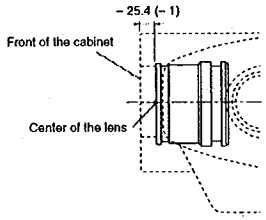
When installing the VPLL-2009 fixed short focus lens



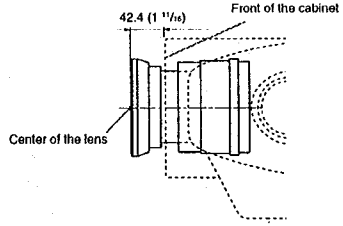
When installing the VPLL-2014 fixed short focus lens



When installing the VPLL-Z2019 1.3-times zoom standard focus lens



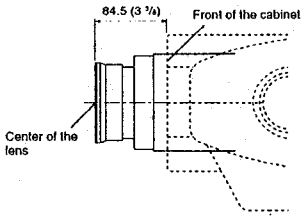
When installing the VPLL-Z2025 1.6-times zoom long focus lens



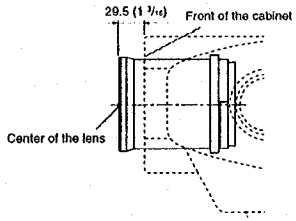
Unit: mm (inches)

Specifications

When installing the VPLL-Z2039 1.5-times+ zoom long focus lens



When installing the VPLL-2075 fixed long focus lens



Unit: mm (inches)

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SONY

3-865-345-11(1)

LCD Data Projector

Installation Manual for Dealers GB
Manuel d'installation destiné aux revendeurs FR
Manual de instalación para proveedores ES

VPL-X2000U
VPL-X2000E
VPL-X2000M

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English

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GB English

Precautions

On safety

- Check that the operating voltage of your unit is identical with the voltage of your local power supply. If voltage adaptation is required, consult with qualified Sony personnel.
- Should any liquid or solid object fall into the cabinet, unplug the unit and have it checked by qualified Sony personnel before operating it further.
- Unplug the unit from the wall outlet if it is not to be used for several days.
- To disconnect the cord, pull it out by the plug. Never pull the cord itself.
- The wall outlet should be near the unit and easily accessible.
- The unit is not disconnected from the AC power source (mains) as long as it is connected to the wall outlet, even if the unit itself has been turned off.
- Do not look into the lens while the lamp is on.
- Do not place your hand or objects near the ventilation holes — the air coming out is hot.
- Carry and handle the projector by more than two people due to an incident of an injury.
- Avoid using an extension cord with a low voltage limited since it may cause the short-circuit and physical incidents.
- To carry the projector, be sure to use the carrying handle. Do not hold other parts of the projector, especially the lens, nor catch your finger between the handle, floor, and the projector.
- Do not catch your finger between the unit and surface of the floor when moving the projector installed on the floor.
- Be careful not to catch your finger in the cooling fan.
- Do not carry the projector by holding the cover of the cabinet.
- Do not carry the projector with the cabinet on and with its cover open.

On installation

- When the projector is mounted on the ceiling, the Sony PSS-2000 Projector Suspension Support must be used for installation.
- Allow adequate air circulation to prevent internal heat build-up. Do not place the unit on surfaces (rugs, blankets, etc.) or near materials (curtains, draperies) that may block the ventilation holes. Leave space of more than 30 cm (11 7/8 inches) between the wall and the projector. Be aware that room heat rises to the ceiling; check that the temperature near the installation location is not excessive.
- Install the projector on the floor or ceiling. Any other installation causes a mulfunction such as color irregularity or shortening lamp life.
- Do not install the unit in a location near heat sources such as radiators or air ducts, or in a place subject to direct sunlight, excessive dust or humidity, mechanical vibration or shock.
- To avoid moisture condensation, do not install the unit in a location where the temperature may rise rapidly.
- Do not install the projector on the low ceiling.
- Be sure to secure the cabinet cover firmly when installing to the ceiling firmly.

On illumination

- To obtain the best picture, the front of the screen should not be exposed to direct lighting or sunlight.
- Ceiling-mounted spot lighting is recommended. Use a cover over fluorescent lamps to avoid lowering the contrast ratio.
- Cover any windows that face the screen with opaque draperies.
- It is desirable to install the projector in a room where floor and walls are not of light-reflecting material. If the floor and walls are of reflecting material, it is recommended that the carpet and wall paper be changed to a dark color.

On preventing internal heat build-up

- After turning off the power, the cooling fan runs for about six minutes while the ON indicator flashes in green. The indicator flashes quickly for 30 seconds. During that time, you will not be able to turn the power back on with the ON key.

Caution

The projector is equipped with ventilation holes (intake) at the bottom/front side and ventilation holes (exhaust) at the left/right side.
Do not block or place anything near these holes, or internal heat build-up may occur, causing picture degradation or damage to the projector.

On cleaning

- To keep the cabinet looking new, periodically clean it with a soft cloth. Stubborn stains may be removed with a cloth lightly dampened with a mild detergent solution. Never use strong solvents, such as thinner, benzene, or abrasive cleansers, since these will damage the cabinet.
- Avoid touching the lens. To remove dust on the lens, use a soft dry cloth. Do not use a damp cloth, detergent solution, or thinner.
- Clean the air filter in every 100 hours.

On repacking

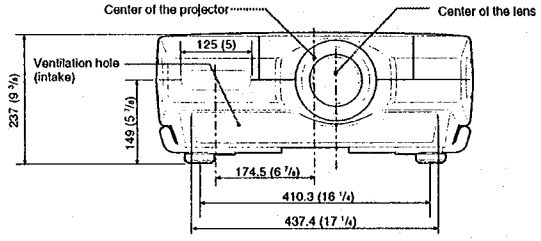
- Save the original shipping carton and packing material; they will come in handy if you ever have to ship your unit. For maximum protection, repack your unit as it was originally packed at the factory.

Dimensions (Necessary Clearance for Installation and Maintenance)

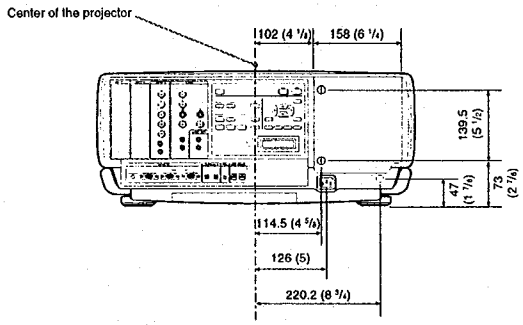
Make sure to provide enough room for maintenance service. Install the projector, making reference to the dimensions below. Also, there should be an enough space around the exhaust and intake holes without blocking them.

A space required around the unit is as follows:
Front: about 50 cm (19 11/16 inches)
Rear: about 30 cm (11 13/16 inches)
Side: about 30 cm (11 13/16 inches)

Front

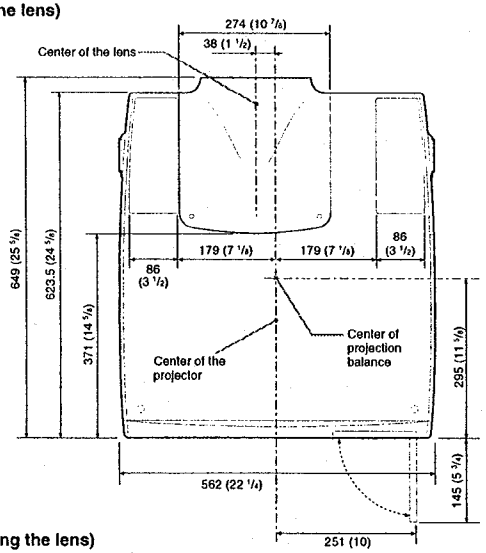


Rear

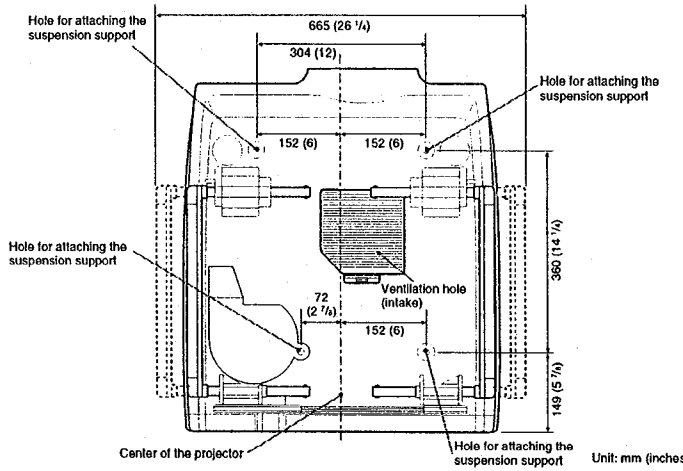


Unit: mm (inches)

Top (excluding the lens)



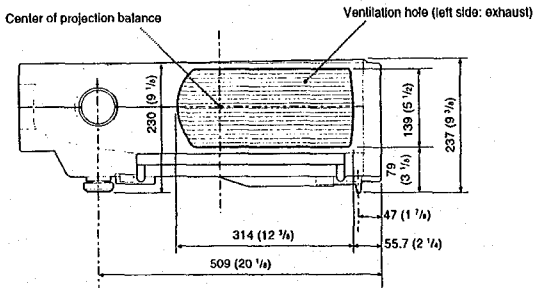
Bottom (excluding the lens)



Unit: mm (inches)

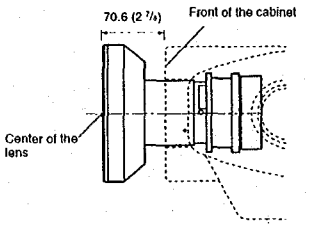
Dimensions (Necessary Clearance for Installation and Maintenance)

Side (excluding the lens)

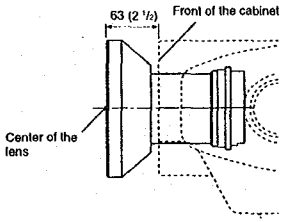


Dimensions from the front of the cabinet to the center of the lens

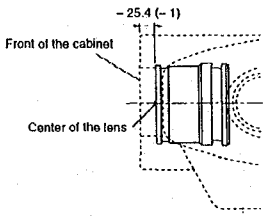
When installing the VPLL-2009 fixed short focus lens



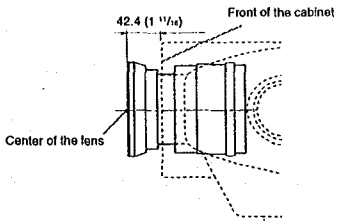
When installing the VPLL-2014 fixed short focus lens



When installing the VPLL-Z2019 1.3-times zoom standard focus lens

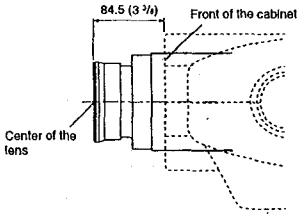


When installing the VPLL-Z2025 1.6-times zoom long focus lens

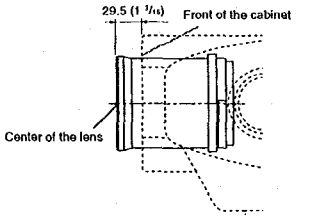


Unit: mm (inches)

When installing the VPLL-Z2039 1.5-times zoom long focus lens



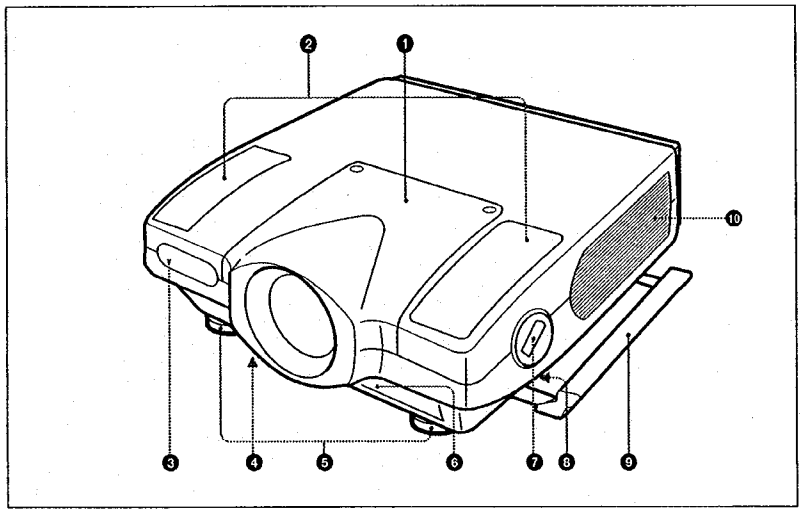
When installing the VPLL-2075 fixed long focus lens



Unit: mm (inches)

Location and Function of Controls

Front



1 **Lens mount part**
When attaching the optional lens, consult with the Sony service personnel.

2 **Speaker**

3 **Front remote control detector**

4 **Bottom ventilation holes (intake)**
Do not block the holes.

5 **Adjusters**
Use the adjusters to keep the projector level if it is installed on an uneven surface.

6 **Front ventilation holes (intake)**
Do not block the holes.

7 **Adjuster button and lever**
Press the button to raise the lever for adjusting the height of the adjuster.

8 **Handle lever (left and right sides)**
Use the lever for putting away the carrying handle.

9 **Carrying handle (left and right sides)**
Pull out the handle for carrying the projector.

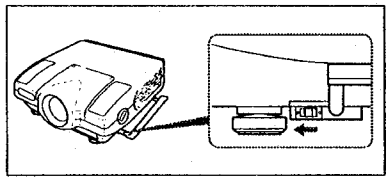
! ... **Left and right side ventilation holes (exhaust)**
Do not place anything within the 30 cm (11 7/8 inches) range from these holes or block them.

Notes

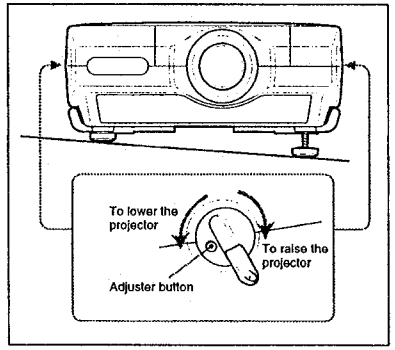
- Do not block the ventilation holes, or internal heat build-up may occur, causing fire or damage to the projector.
- Do not place anything near the ventilation holes or touch these holes as the temperature will be very high.

Using the carrying handles

Pull out to use for carrying the projector. To put away the handle, slide the handle lever forward.



Using the adjusters

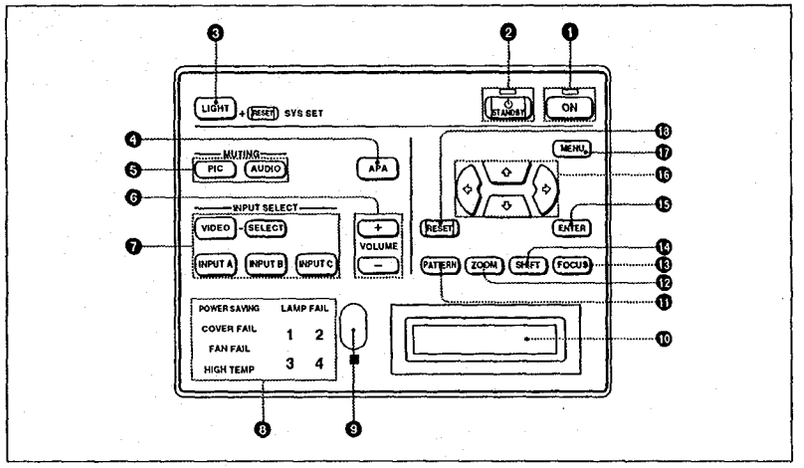


1 Press the adjuster button.
The adjuster lever comes out.

2 Turn the lever to adjust the height so that the projector becomes level.

3 Replace the adjuster lever after use.

Control panel



1 ON key and indicator
Press to turn on the power of the projector.
The indicator lights when the key is pressed.
The indicator flashes for about six minutes after the power is turned off by pressing the STANDBY key, as the fan runs for six minutes to cool down the inside of the projector. The indicator flashes quickly for 30 seconds, during which you will not be able to turn the power back on with the ON key.

2 STANDBY key and indicator
Press to make the projector enter standby mode.
The indicator lights to indicate that the projector is in standby mode.

3 LIGHT key
Illuminates the key indicators in orange when the projector is turned on. Illuminates the indicators for the relative keys in green when this key is pressed during operation. Press again to turn off the indicators.

Pressing this key and the RESET key simultaneously has the same function as the SYS SET key on the Remote Commander. Use when the PC-3000 signal interface switcher is used in the system or the system connections are changed.

4 APA (Auto Pixel Allgnment) key
Adjusts the position of the picture on the screen automatically so that the picture is clearly visible when the signals are input from a computer.

5 MUTING keys
Cut off the picture or sound temporarily.
PIC: Press to cut off the picture. Press again to restore the picture.
AUDIO: Press to cut off the sound output from the speakers or the AUDIO OUT jacks. Press again or press the VOLUME + key to restore the sound.

6 VOLUME +/– keys
Adjust the volume of the built-in speakers and output level of the AUDIO OUT jacks.
+ : Increases the volume.
– : Decreases the volume.

❼ INPUT SELECT keys
Select the input signal.
VIDEO: Selects the video signal input from the VIDEO or S VIDEO connectors and the audio signal input from the AUDIO IN L/R jacks. To switch the S VIDEO and VIDEO connectors, use the SELECT key.
SELECT: Each time you press this key, the input video signal is switched between the VIDEO and S VIDEO connectors.
INPUT A: Selects the audio and video signals input from the INPUT A connectors.
INPUT B: Selects the signal input from the connectors on the optional interface board which is installed in the INPUT B section. When the IFB-12A interface board is installed and the output mode is selected on the IFB-12A, the key does not function.
INPUT C: Selects the signal input from the connectors on the optional interface board which is installed in the INPUT C section.

Note on the VPL-X2000E
The optional IFB-X2000E interface board is required to select VIDEO.

❽ Indicators
POWER SAVING: Lights when the projector is in power saving mode. When POWER SAVING in the SET SETTING menu is set to ON, the projector goes into the power saving mode if no signal is input for 10 minutes. Although the lamp goes out, the cooling fan keeps running. In the power saving mode, only the STANDBY key functions for the first 30 seconds. The power saving mode is canceled when a signal is input or any key is pressed.
COVER FAIL: Lights when the lamp cover or air filter cover is not secured firmly.
FAN FAIL: Lights when the fan is broken.
HIGH TEMP: Lights when temperature inside the projector becomes unusually high.
LAMP FAIL: When the lamp life has reached the end, the indicator of that lamp lights.

❾ Rear remote control detector

❿ Message display window
Displays the signal status, timer and error messages about the input signals.

⓫ PATTERN key
Displays a HATCH pattern on the screen for focus, zoom, and shift adjustments. Press again to turn off the HATCH pattern.

⓬ ZOOM key
Enters the zoom adjustment mode. When the key is pressed, the relative keys light in green.
Next adjust the zoom using the arrow keys.
↑: Enlarges the picture size.
↓: Reduces the picture size.

Note
If the VPLL-2075, VPLL-2014 or VPLL-2009 optional lens is installed, you cannot adjust the zoom.

⓭ FOCUS key
Enters the focus adjustment mode. When the key is pressed, the relative keys light in green.
Next adjust the focus using the arrow keys.
↑: Focuses on a forward picture.
↓: Focuses on a picture further back.

⓮ SHIFT (lens shift) key
Enters the shift adjustment mode. When the key is pressed, the relative keys light in green.
Next adjust the vertical position of the picture using the arrow keys.
↑: Moves the picture upward.
↓: Moves the picture downward.

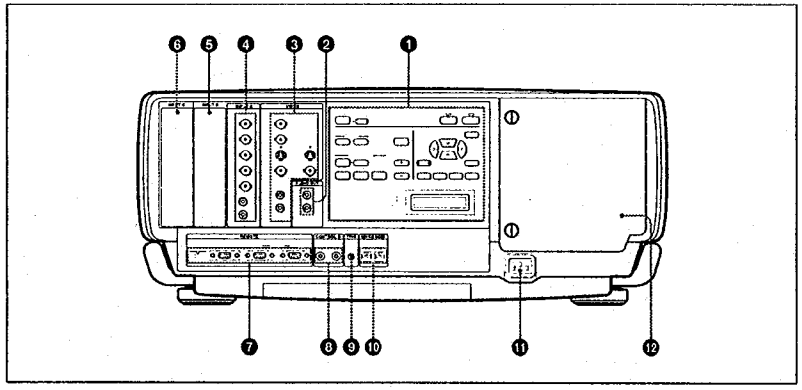
⓯ ENTER key
Stores the settings in the menu.

⓰ Arrow keys (↑/↓/←/→)
Used to adjust the picture after pressing the ZOOM, FOCUS or SHIFT key. Also used to move the cursor or adjust the value in the menu.

⓱ MENU key
Displays the menu on the screen. When the key is pressed, the relative keys light in green.
Press again to turn off the menu.

⓲ RESET key
Resets the adjusted value of an item to its factory preset value. This key functions when the menu or a setting item is displayed on the screen.

Rear



❶ Control panel
For details, see pages 12 (GB) and 13 (GB).

❷ AUDIO OUT L/R jacks (phono type)
Connect to external active speakers.
The volume of the speakers can be controlled by the VOLUME keys on the Remote Commander or the control panel.

❸ VIDEO connectors
Connect to external video equipment, such as a VCR.
- **Y IN/C IN (BNC type):** Connect to the Y and C video outputs of the video equipment.
- **S VIDEO IN (mini DIN 4-pin):** Connects to the Y/C video output of the video equipment.
- **S VIDEO OUT (mini DIN 4-pin):** Used as loop-through output via the Y/C IN connectors or the S VIDEO IN connector.
- **VIDEO IN (BNC type):** Connects to the composite video output connector of the video equipment.
- **VIDEO OUT (BNC type):** Used as loop-through output of the VIDEO IN connector.
- **AUDIO IN L (MONO)/R jacks (phono type):** Connect to the audio output jacks of equipment, such as a VCR. For stereo equipment, use both the L and R jacks; for monaural equipment, use the L (MONO) jack only.

Note
If you have video equipment connected to both the Y/C IN and S VIDEO IN connectors, the signal from the Y/C IN connectors are selected prior to the S VIDEO IN connector. When projecting video connected to the S VIDEO IN connector, be sure not to connect any cable to the Y/C IN connectors.

Note on the VPL-X2000E model
The optional IFB-X2000E interface board is required for using the VIDEO connectors.

❹ INPUT A connectors
- **RGB input connectors (R/R-Y/P_R, G/Y, B/B-Y/P_B, SYNC/HD, VD) (BNC type):** Connect to the video outputs of equipment such as a computer or a video camera.
  According to the connected equipment, the RGB or component (R-Y, Y, B-Y) or HDTV (P_R, Y, P_B) signal is selected.
- **AUDIO IN L (MONO)/R jacks (phono type):** Connect to the audio output jacks of equipment such as a computer or a video camera. For stereo equipment, use both the L and R jacks; for monaural equipment, use the L (MONO) jack only.

Note
The INPUT A connectors do not function when the PC-3000 signal interface switcher is connected.

❺ Signal interface board attachment part (INPUT B)
Optional signal interface board can be attached according to your requirements. If you install the IFB-12A interface board to this section and select the output mode, you can output the signal input through the INPUT A connectors.
For details on installing the interface boards, consult with qualified Sony personnel.

❻ Signal interface board attachment part (INPUT C)
Optional signal interface board can be attached according to your requirements.

Note
You cannot select the output mode when attaching the IFB-12A interface board.

❼ REMOTE connectors
Used to expand system capability.
- **RS-232C/RS-422A select switch:** Selects according to the interface connected to the RS-232C/RS-422A connector.
- **RS-232C/RS-422A connector (D-sub 9-pin, female):** Connect to a computer to operate the projector from the computer.
- **PJ COM IN/OUT connectors (D-sub 9-pin, female):** The connectors conform to the RS-485 standards and are used to expand system capability for Sony projectors.

For details on connections, see the PJ COM protocol manual for Sony projectors.

❽ CONTROL S IN/OUT jacks (stereo minijack)
Connect to the control S jacks of other Sony equipment.
- **CONTROL S IN/PLUG IN POWER (DC 5 V output) jack:** Connects to the CONTROL S OUT jack of the supplied Remote Commander when using as a wired Remote Commander. In this case, you do not need to install the batteries in the Remote Commander, since the power is supplied from this jack.
- **CONTROL S OUT jack:** Outputs the control S signal.

Note
When connecting the remote commander cable to the CONTROL S IN jack, the remote control detectors will not function.

❾ TRIG (trigger output) jack (monaural minijack)
The signal is transmitted from this jack to the connected equipment whether the projector is on or off. (This is not a power source for external equipment.) When the power is on, the TRIG jack transmits approximately 12 V trigger signal to external equipment connected to the projector. This signal is useful when you connect a system integrator, etc., to the projector; you can pull down an electric screen, draw an electric curtain, or dim lights at the same time as you turn on the projector power. (You cannot use the trigger signal as a power source.)
This jack outputs 0 V DC when the power is off.

❿ DEVICE INDEX switch
Set the device index number of the projector when using multiple projectors. You can set the numbers between "01" and "99". It is set to "01" at the factory. You can also set the group index number in the menu for system setup.

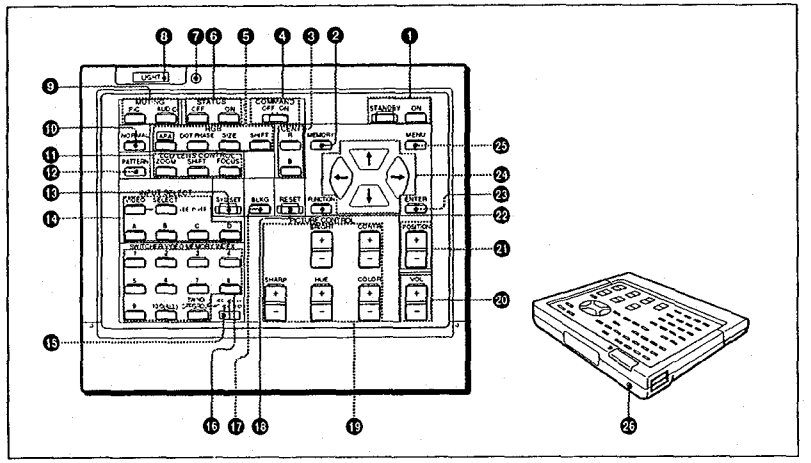
Note
Do not set the device index number to "00". If you do, the projector will be operated only with the keys on the control panel.

⓫ AC IN socket
Connect the supplied AC Power cord.

⓬ Lamp cover

Remote Commander

The Remote Commander can be used as a wireless or wired Remote Commander. The keys on the Remote Commander with the same names function the same as those on the control panel of the projector.
For details on control panel keys on the projector, see pages 12 (GB) and 13 (GB).



❶ ON/STANDBY keys

❷ MEMORY key
The key does not function with this projector.

❸ CENT R/B keys
The keys do not function with this projector.

❹ COMMAND ON/OFF key
No keys except for the LIGHT button on the Remote Commander function when this switch is set to OFF. This saves battery power.

❺ RGB keys
Adjust the picture.
APA: The key functions the same as the APA key on the control panel.
DOT PHASE: Press to adjust the phase of the LCD panels and the input signals (except for 15k RGB/video/HDTV signals). After pressing this key, adjust the position of the picture using the four arrow keys so that the clearest picture is obtained.
SIZE: Enters the size adjustment mode for the input signal. Next adjust the horizontal size of the picture using the arrow keys.
←: to reduce horizontal size
→: to expand horizontal size
SHIFT: Enters the shift adjustment mode for the input signal. Next adjust the position of the picture using the four arrow keys. The picture shifts in the direction of the arrow on the pressed key.

❻ STATUS ON/OFF keys
Press OFF to eliminate the on-screen display.
Press ON to restore the on-screen display.

Note
The menus and warning messages appear even if the OFF key is pressed.

❼ Transmission Indicator
The light goes on each time a key is pressed. If the indicator does not light, replace the batteries.

❽ LIGHT button
Illuminates the key indicators when the COMMAND switch is set to ON. If the switch is set to OFF, only the COMMAND switch is illuminated.
If you do not press any key on the Commander for more than 30 seconds, the key indicators turn off automatically. The indicators also turn off if you press the LIGHT button again.

❾ MUTING keys

❿ NORMAL key
The key does not function with this projector.

⓫ LCD LENS CONTROL keys
Press one of the ZOOM, SHIFT and FOCUS keys and then the arrow keys (↑ or ↓).

⓬ PATTERN key

⓭ SYS SET (system set) key
When the PC-3000 signal interface switcher is used in the system or the system connections are changed, press this key.

Note
After connecting the PC-3000 switcher and pressing the SYS SET key, the input channel is set to SW1-1 when connecting a single switcher, or to SW1-2 when connecting two or more switchers.

⓮ INPUT SELECT keys
The D key does not function with this projector.

⓯ SWITCHER/VIDEO MEMORY/INDEX select switch
Selects the function of the SWITCHER/VIDEO MEMORY/INDEX keys.
SWITCHER: selects the input from the PC-3000 switcher.
VIDEO MEMORY: The position does not function with this projector.
INDEX: selects a projector by its index number when multiple projectors are used.

⓰ SWITCHER/VIDEO MEMORY/INDEX keys

When **the SWITCHER/VIDEO MEMORY/ INDEX select switch** is set to **SWITCHER**

When the PC-3000 switcher is connected to the projector, press a number key (1 to 8) to select the input from the switcher. Number key 9 does not function.
To select an input when multiple switchers are connected, press the SW NO/OFF/GROUP key. Next press the switcher number (1 to 8) and the input number (1 to 8) in sequence. Be sure to press the keys one after another within 2 seconds.
e.g. To select input 4 of switcher 2, press the keys as follows:
SW NO → 2 → 4.

When **the SWITCHER/VIDEO MEMORY/ INDEX select switch** is set to **INDEX**

Used to specify the device or group index number.

⓱ BLKG (blanking) adjustment key
Enters the blanking adjustment mode.
Next, press the ↑/↓ key to select the position to be adjusted on the screen, and then adjust the position using the ←/→ keys.

⓲ RESET key

⓳ PICTURE CONTROL +/– keys
Adjust the picture conditions: CONTR (contrast), BRIGHT (brightness), COLOR, HUE and SHARP (sharpness).

⓴ VOL (volume) +/– keys

㉑ POSITION +/– keys
These keys do not function with this projector.

(Continued)

㉒ **FUNCTION key**
The key does not function with this projector.

㉓ **ENTER key**

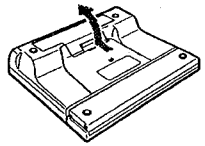
㉔ **Arrow keys**

㉕ **MENU key**

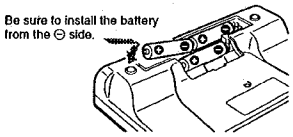
㉖ **CONTROL S OUT jack**
Connect the supplied remote control cable to this jack and to the CONTROL S IN jack of the projector for wired remote control operation.
When the Commander is connected to the CONTROL S IN/PLUG IN POWER jack of the projector via the remote control cable (stereo), the power for the Remote Commander is supplied from the projector.

Battery installation

1 Push to open the lid.



2 Install three R6 (size AA) batteries (supplied) with the polarities correctly aligned.



3 Replace the lid.

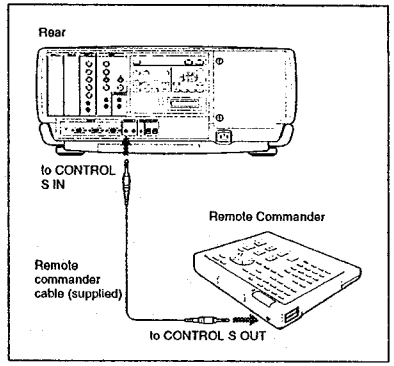
Notes on batteries

- Make sure that the battery orientation is correct when inserting batteries.
- Do not mix old battery with new one, or different types of batteries.
- If you will not use the Remote Commander for a long time, remove the batteries to avoid damage from battery leakage. If batteries have leaked, remove them, wipe the battery compartment dry and replace the batteries with new ones.

Notes on wireless Remote Commander operation

- Be sure that there is nothing to obstruct the infrared beam between the Remote Commander and the projector.
- The operation range is limited. The shorter the distance between the Remote Commander and the projector, the wider the angle within which the commander can control the projector.
- The remote control detectors on the projector do not operate when connecting the remote commander cable to the CONTROL S IN jack. If you wish to use the Remote Commander as a wireless Remote Commander, be sure to remove the remote commander cable from both the Remote Commander and the projector.

To connect the Remote Commander to the projector



Note on wired Remote Commander operation using the supplied remote commander cable (stereo)

You do not need to install the batteries since the power is supplied from the CONTROL S IN jack on the projector. In this case, the batteries are not consumed.

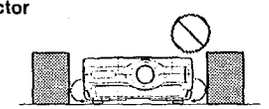
Precautions on Installation

Do not install the projector in the following situations. These installations may cause malfunction or damage to the projector.

Do not install the projector in an ill-ventilated place

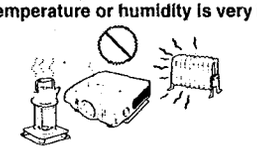
The projector is equipped with ventilation holes for intake on the bottom and front and ventilation holes for exhaust on the left and right sides to prevent internal heat build-up. Do not block these ventilation holes and allow adequate air circulation at an installation location.

Do not place any object beside the projector

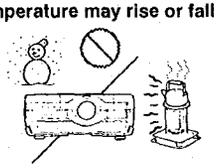


If you put something beside the ventilation holes on the sides, the exhaust may be inhaled into the projector through the ventilation holes (intake) at the bottom, causing the internal temperature to rise and thereby activating the protection circuit. Install the projector so that the exhaust is not blocked.

Do not install the projector in a location where temperature or humidity is very high

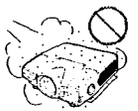


Avoid installing the projector in a location where temperature may rise or fall rapidly

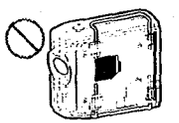


Be careful of air-conditioning and heating in a room where the projector is installed, as sudden changes in temperature may lead to moisture condensation and cause damage to the projector.

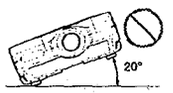
Avoid installing the projector in a location subject to excessive dust



Do not use the projector while laying it on its side



Do not tilt the projector when in use

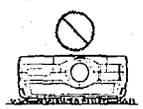


Avoid tilting the projector more than 20 degrees or installing it other than on the floor and ceiling. Such installations may cause malfunctions such as color irregularity or shortening of lamp life.

Do not cover the ventilation holes (exhaust)

Do not cover the front ventilation holes; otherwise, internal heat may build up.

Do not install the projector on a deep-pile carpet



If you install the projector on a deep-pile carpet, the ventilation holes (intake) at the bottom may be blocked, causing an internal heat build-up.

Tips on the Screen

Screen size

The screen size is the diagonal length of the screen in inches, while the aspect ratio of the screen is 3:4. The ratio of the screen height, width, and diagonal is 3:4:5.
If you use a screen with 3:4 aspect ratio whose size is not given in the table below, you can calculate the screen height and width from the screen size (inches) as follows.
Calculate at the conversion rate of 25.4 mm to the inch.

Height (mm) = Screen size × 25.4 × $^3/_5$
Width (mm) = Screen size × 25.4 × $^4/_5$

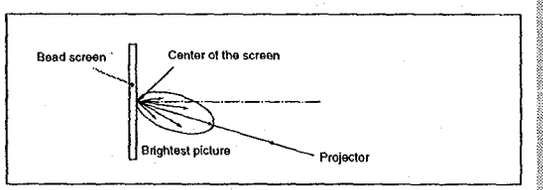
Screen size and dimensions

Screen sizes (inches) (Diagonal)	Height (mm)	Width (mm)
60	914	1219
80	1219	1626
100	1524	2032
120	1829	2438
150	2286	3048
180	2743	3658
200	3048	4064
250	3810	5080
300	4572	6096

Types of screen

Front projection screen for floor installation

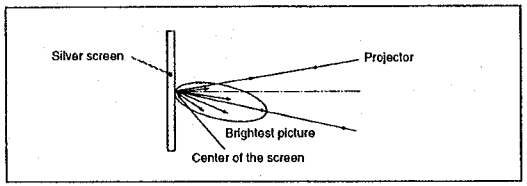
The bead screen is recommended. A screen of this type reflects the brightest light.



Tips on the Screen

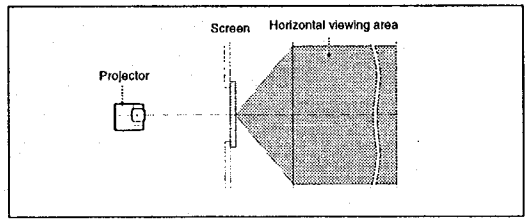
Front projection screen for ceiling installation

The silver screen is recommended. You can get a picture that is two to four times brighter than that of the white screen.



Rear projection screen

The rear projection screen is recommended for a bright and clear full-screen picture projection since the sunlight has little effect on the screen.

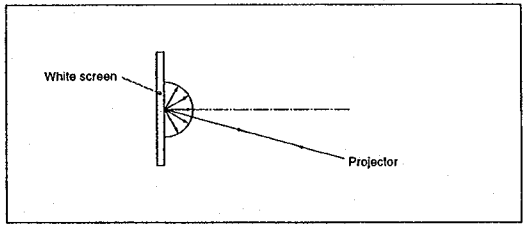


Notes

- A moiré pattern may occur in accordance with the pitch of the screen.
- Be sure to confirm the picture quality before installation.

White screen

When viewers watch the projected picture in a wide area, you can obtain a picture that appears equally bright from all parts of the room using the white screen for both floor and ceiling installations.



Before Installing the Projector

Attaching the Lens

Attach one of the following types of optional lenses to the projector according to your purpose.

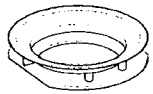
- VPLL-2009 fixed short focus lens
- VPLL-2014 fixed short focus lens
- VPLL-Z2019 1.3-times zoom standard focus lens
- VPLL-Z2025 1.6-times zoom long focus lens
- VPLL-Z2039 1.5-times zoom long focus lens
- VPLL-2075 fixed long focus lens

To attach the lens, follow the steps below.

Before attaching the lens

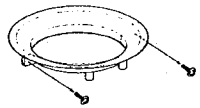
The lens ring used for the lens and the attaching method vary depending on the types of lenses. Check your lens type by referring below.

Unit type lens ring (supplied with the projector)



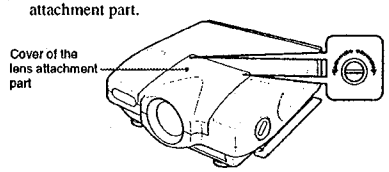
The unit type lens ring is used for the VPLL-Z2025, VPLL-Z2039 and VPLL-2075.

Assembly type lens ring (attached to the projector)

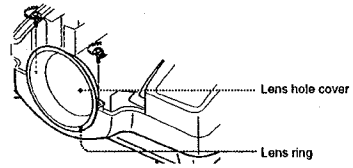


The assembly type lens ring is used for the VPLL-2014, VPLL-2009 and VPLL-Z2019. For the VPLL-2014 and VPLL-2009, disassemble the ring by removing the screws before attaching.
For VPLL-Z2019, attach the lens ring without disassembling.

1 Turn the screws on the lens attachment part either clockwise or counterclockwise by 90 degrees with a screwdriver, then remove the cover from the lens attachment part.

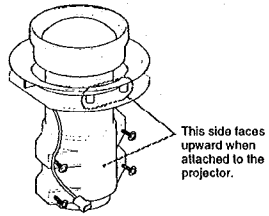


2 Remove the lens ring and the lens hole cover.



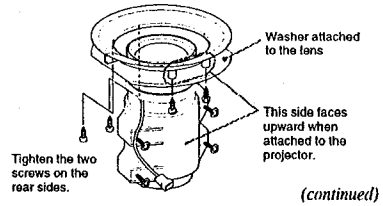
3 Attach the lens ring to the lens.

For VPLL-Z2025, VPLL-Z2039 and VPLL-2075



For VPLL-Z2019

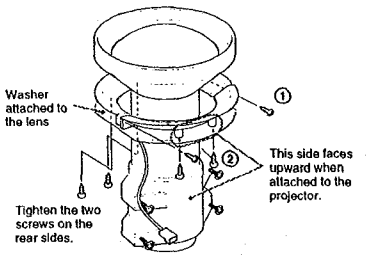
Attach the lens washer to the lens ring with the four screws.


Washer attached to the lens
This side faces upward when attached to the projector.
Tighten the two screws on the rear sides.

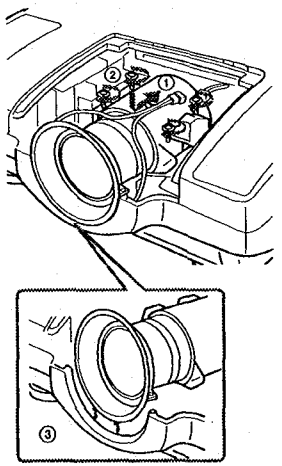
(continued)

For VPLL-2014 and VPLL-2009

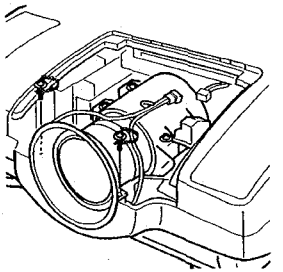
① Disassemble the lens ring and attach it to the lens.
② Attach the lens washer to the lens ring with the four screws.


Washer attached to the lens
①
②
This side faces upward when attached to the projector.
Tighten the two screws on the rear sides.

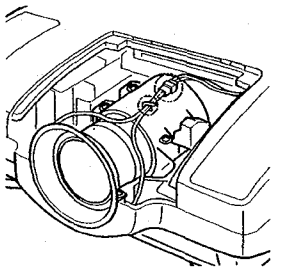
4 Mount the lens onto the projector.
① Install the lens onto the projector, and push the lens until it touches the stopper.
② Secure the lens by tightening the four screws.
③ Fit the projections on the lens ring to the groove on the projector.



5 Tighten the two screws on the lens ring to secure the ring firmly.



6 Attach the connector from the lens to the projector and fix it with the cable harness.



7 Replace the cover for the lens attachment part and tighten the screws.

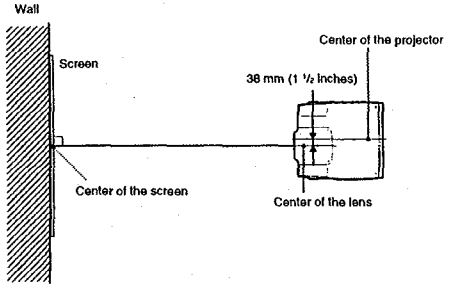
Notes

- When attaching the lens, be careful not to overtighten the screws.
- The lens scratches easily, so when handling it, always place it gently on a stable and level surface in a horizontal position.
- Avoid touching the lens surface.

Checking the Horizontal Position of the Picture

Install the projector so that the center of the lens is aligned with the horizontal center of the screen.

Horizontal positioning (top view)



Ceiling Installation Using the PSS-2000

Refer to the Operating Instructions supplied with the PSS-2000 projector suspension support.

Installation for Twin/Triple Stacking

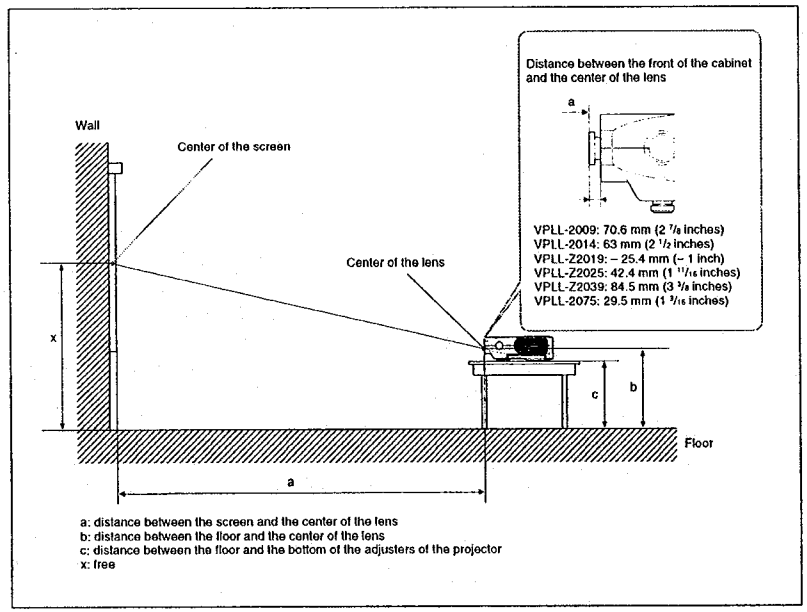
Refer to the Operating Instructions supplied with the SU-PJ2000 projector stand.

Changing the Polarity According to the Installation Condition

The polarity of the projector is adjusted at the factory to use the projector for front projection on the floor.
When the projector is installed on the ceiling, it is necessary to change the setting of INSTALLATION in the SET SETTING menu to project the picture properly.
For details, see page 55 (GB).

Installation Examples

Floor Installation


Distance between the front of the cabinet and the center of the lens
a
VPLL-2009: 70.6 mm (2 7/8 inches)
VPLL-2014: 63 mm (2 1/2 inches)
VPLL-Z2019: – 25.4 mm (– 1 inch)
VPLL-Z2025: 42.4 mm (1 11/16 inches)
VPLL-Z2039: 84.5 mm (3 3/8 inches)
VPLL-2075: 29.5 mm (1 3/16 inches)
Wall
Center of the screen
Center of the lens
x
c
b
Floor
a
a: distance between the screen and the center of the lens
b: distance between the floor and the center of the lens
c: distance between the floor and the bottom of the adjusters of the projector
x: free

When using the VPLL-2009 fixed short focus lens

Make sure that the center of the lens is aligned with the vertical center of the screen.

Unit: mm (inches)

Screen size (inches)		40	80	100	120	150	180	200	250	300	350	400	450	500
a		640 (25 1/4)	1410 (55 5/8)	1800 (70 7/8)	2190 (86 1/4)	2770 (109 1/8)	3350 (132)	3730 (146 7/8)	4700 (185 1/8)	5670 (223 3/8)	6630 (261 1/8)	7600 (299 1/4)	8570 (337 1/2)	9530 (375 1/4)
b	Min.	x–11 (x–7/16)	x–22 (x–7/8)	x–28 (x–1 1/8)	x–33 (x–1 5/16)	x–41 (x–1 11/16)	x–50 (x–2)	x–55 (x–2 1/4)	x–69 (x–2 3/4)	x–83 (x–3 3/4)	x–96 (x–3 7/8)	x–110 (x–4 3/8)	x–124 (x–5)	x–138 (x–5 1/2)
	Center	x												
	Max.	x+11 (x+7/16)	x+22 (x+7/8)	x+28 (x+1 1/8)	x+33 (x+1 5/16)	x+41 (x+1 11/16)	x+50 (x+2)	x+55 (x+2 1/4)	x+69 (x+2 3/4)	x+83 (x+3 3/8)	x+96 (x+3 7/8)	x+110 (x+4 3/8)	x+124 (x+5)	x+138 (x+5 1/2)
c	Min.	x–154 (x–6 1/8)	x–165 (x–6 1/2)	x–170 (x–6 3/4)	x–176 (x–7)	x–184 (x–7 1/4)	x–192 (x–7 5/8)	x–198 (x–7 7/8)	x–211 (x–8 3/4)	x–225 (x–8 7/8)	x–239 (x–9 1/2)	x–253 (x–10)	x–267 (x–10 1/2)	x–280 (x–11 1/4)
	Center	x–142 (x–5 5/8)												
	Max.	x–130 (x–5 1/4)	x–119 (x–4 3/4)	x–114 (x–4 1/2)	x–108 (x–4 3/8)	x–100 (x–4)	x–92 (x–3 5/8)	x–86 (x–3 1/2)	x–73 (x–2 7/8)	x–59 (x–2 3/8)	x–45 (x–1 13/16)	x–31 (x–1 1/4)	x–17 (x–11/16)	x–4 (x–5/32)

To calculate the installation measurement (unit: mm)

SS: screen size measured diagonally (inches)
a = (SS × 35.079/1.814) – 134
b (minimum) = x – (SS/1.814 × 0.5)
b (maximum) = x + (SS/1.814 × 0.5)
c (minimum) = x – (SS/1.814 × 0.5 + 142.5)
c (maximum) = x – (SS/1.814 × – 0.5 + 141.5)

When using the VPLL-2014 fixed short focus lens

Unit: mm (inches)

Screen size (inches)		40	80	100	120	150	180	200	250	300	350	400	450	500
a		1030 (40 5/8)	2180 (85 7/8)	2760 (108 3/4)	3330 (131 1/8)	4200 (165 3/8)	5060 (199 1/4)	5640 (222 1/4)	7080 (278 7/8)	8520 (335 1/2)	9960 (392 1/4)	11400 (448 7/8)	12840 (505 5/8)	14280 (562 3/4)
b	Min.	x–198 (x–7 1/8)	x–397 (x–15 5/8)	x–496 (x–19 3/4)	x–595 (x–23 1/2)	x–744 (x–29 3/8)	x–893 (x–35 1/4)	x–992 (x–39 1/8)	x–1240 (x–48 7/8)	x–1488 (x–58 5/8)	x–1736 (x–68 3/4)	x–1984 (x–78 1/4)	x–2232 (x–88)	x–2480 (x–97 3/4)
	Max.	x												
c	Min.	x–349 (x–13 7/8)	x–548 (x–21 3/8)	x–647 (x–25 1/2)	x–746 (x–29 1/2)	x–895 (x–35 1/4)	x–1044 (x–41 1/8)	x–1143 (x–45 1/8)	x–1391 (x–54 7/8)	x–1639 (x–64 5/8)	x–1887 (x–74 3/8)	x–2135 (x–84 1/8)	x–2383 (x–93 7/8)	x–2631 (x–103 5/8)
	Max.	x–142 (x–5 5/8)												

To calculate the installation measurement (unit: mm)

SS: screen size measured diagonally (inches)
a = (SS × 52.244/1.814) – 123
b (minimum) = x – (SS/1.814 × 9.0)
c (minimum) = x – (SS/1.814 × 9.0 + 151.0)

Installation Examples

When using the VPLL-Z2019 1.3-times zoom standard focus lens

Unit: mm (inches)

Screen size (inches)		40	80	100	120	150	180	200	250	300	350	400	450	500
a	Min.	1490 (58 3/4)	3080 (121 3/4)	3870 (152 1/2)	4670 (184)	5860 (230 3/4)	7050 (277 3/4)	7850 (309 1/4)	9840 (387 1/2)	11820 (465 1/2)	13810 (543 7/8)	15800 (622 1/4)	17790 (700 1/2)	19780 (778 7/8)
	Max.	1890 (74 1/2)	3880 (152 7/8)	4880 (192 1/4)	5870 (231 1/4)	7370 (290 1/4)	8860 (348 7/8)	9860 (388 1/4)	12350 (486 3/4)	14840 (584 3/4)	17330 (682 3/4)	19810 (780 1/4)	22300 (878 1/2)	24790 (976 1/4)
b	Min.	x–287 (x–11 3/4)	x–573 (x–22 5/8)	x–717 (x–28 1/4)	x–860 (x–33 7/8)	x–1075 (x–42 3/8)	x–1290 (x–50 7/8)	x–1433 (x–56 1/2)	x–1791 (x–70 5/8)	x–2150 (x–84 3/4)	x–2508 (x–98 3/4)	x–2866 (x–112 7/8)	x–3225 (x–127)	x–3583 (x–141 1/8)
	Max.	x												
c	Min.	x–442 (x–17 1/2)	x–728 (x–28 3/4)	x–872 (x–34 3/4)	x–1015 (x–40)	x–1230 (x–48 1/2)	x–1445 (x–57)	x–1588 (x–62 5/8)	x–1946 (x–76 3/4)	x–2305 (x–90 3/4)	x–2663 (x–104 7/8)	x–3021 (x–118 31/32)	x–3380 (x–133 1/8)	x–3738 (x–147 1/4)
	Max.	x–142 (x–5 5/8)												

To calculate the installation measurement (unit: mm)

SS: screen size measured diagonally (inches)

a (minimum) = ((SS × 70.383/1.814) – 102) × 1.025

a (maximum) = ((SS × 92.644/1.814) – 104) × 0.975

b (minimum) = x – (SS/1.814 × 13.0)

c (minimum) = x – (SS/1.814 × 13.0 + 155.0)

When using the VPLL-Z2025 1.6-times zoom long focus lens

Unit: mm (inches)

Screen size (inches)		80	100	120	150	180	200	250	300	350	400	450	500
a	Min.	3980 (156 3/4)	5020 (197 11/16)	6060 (238 5/8)	7620 (300 1/8)	9180 (361 1/2)	10220 (402 1/2)	12830 (505 1/4)	15430 (607 3/4)	18030 (709 15/16)	20630 (812 3/4)	23230 (914 3/4)	25830 (1017 1/4)
	Max.	6160 (242 5/8)	7750 (305 1/4)	9330 (367 3/4)	11710 (461 1/4)	14080 (554 1/2)	15660 (616 5/8)	19620 (772 5/8)	23580 (928 1/2)	27540 (1084 1/2)	31500 (1240 3/4)	35460 (1396 1/4)	39420 (1552 1/4)
b	Min.	x–573 (x–22 5/8)	x–717 (x–28 1/4)	x–860 (x–33 7/8)	x–1075 (x–42 3/8)	x–1290 (x–50 7/8)	x–1433 (x–56 1/2)	x–1791 (x–70 5/8)	x–2150 (x–84 3/4)	x–2508 (x–98 3/4)	x–2866 (x–112 7/8)	x–3225 (x–127)	x–3583 (x–141 1/8)
	Max.	x											
c	Min.	x–728 (x–28 3/4)	x–872 (x–34 3/4)	x–1015 (x–40)	x–1230 (x–48 1/2)	x–1445 (x–57)	x–1588 (x–62 5/8)	x–1946 (x–76 3/4)	x–2305 (x–90 3/4)	x–2663 (x–104 7/8)	x–3021 (x–118 31/32)	x–3380 (x–133 1/8)	x–3738 (x–147 1/4)
	Max.	x–142 (x–5 5/8)											

To calculate the installation measurement (unit: mm)

SS: screen size measured diagonally (inches)

a (minimum) = ((SS × 92.078/1.814) – 176) × 1.025

a (maximum) = ((SS × 147.324/1.814) – 175) × 0.975

b (minimum) = x – (SS/1.814 × 13.0)

c (minimum) = x – (SS/1.814 × 13.0 + 155.0)

When using the VPLL-Z2039 1.5-times zoom long focus lens

Unit: mm (inches)

Screen size (inches)		80	100	120	150	180	200	250	300	350	400	450	500
a	Min.	6360 (250 1/2)	7990 (314 5/8)	9620 (378 7/8)	12070 (475 3/4)	14510 (571 3/4)	16150 (636)	20220 (796 1/4)	24300 (956 7/8)	28380 (1117 1/2)	32460 (1278 1/8)	36540 (1438 7/8)	40620 (1599 1/2)
	Max.	9150 (360 3/4)	11480 (452 1/8)	13810 (543 7/8)	17300 (681 1/4)	20790 (818 5/8)	23120 (910 3/4)	28940 (1139 5/8)	34760 (1368 7/8)	40570 (1597 1/2)	46390 (1826 5/8)	52210 (2055 7/8)	58030 (2284 15/16)
b	Min.	x–573 (x–22 5/8)	x–717 (x–28 1/4)	x–860 (x–33 7/8)	x–1075 (x–42 3/8)	x–1290 (x–50 7/8)	x–1433 (x–56 1/2)	x–1791 (x–70 5/8)	x–2150 (x–84 3/4)	x–2508 (x–98 3/4)	x–2866 (x–112 7/8)	x–3225 (x–127)	x–3583 (x–141 1/8)
	Max.	x											
c	Min.	x–728 (x–28 3/4)	x–872 (x–34 3/4)	x–1015 (x–40)	x–1230 (x–48 1/2)	x–1445 (x–57)	x–1588 (x–62 5/8)	x–1946 (x–76 3/4)	x–2305 (x–90 3/4)	x–2663 (x–104 7/8)	x–3021 (x–118 31/32)	x–3380 (x–133 1/8)	x–3738 (x–147 1/4)
	Max.	x–142 (x–5 5/8)											

To calculate the installation measurement (unit: mm)

SS: screen size measured diagonally (inches)

a (minimum) = ((SS × 144.368/1.814) – 163) × 1.025

a (maximum) = ((SS × 216.549/1.814) – 163) × 0.975

b (minimum) = x – (SS/1.814 × 13.0)

c (minimum) = x – (SS/1.814 × 13.0 + 155.0)

When using the VPLL-2075 fixed long focus lens

Unit: mm (inches)

Screen size (inches)		80	100	120	150	180	200	250	300	350	400	450	500
a		12030 (473 11/16)	15000 (590 5/8)	17960 (707 1/4)	22410 (882 1/2)	26860 (1057 5/8)	29830 (1174 3/4)	37250 (1466 3/4)	44660 (1758 1/2)	52080 (2050 3/4)	59500 (2342 7/8)	66910 (2634 5/8)	74330 (2926 3/4)
b	Min.	x–573 (x–22 5/8)	x–717 (x–28 1/4)	x–860 (x–33 7/8)	x–1075 (x–42 3/8)	x–1290 (x–50 7/8)	x–1433 (x–56 1/2)	x–1791 (x–70 5/8)	x–2150 (x–84 3/4)	x–2508 (x–98 3/4)	x–2866 (x–112 7/8)	x–3225 (x–127)	x–3583 (x–141 1/8)
	Max.	x											
c	Min.	x–728 (x–28 3/4)	x–872 (x–34 3/4)	x–1015 (x–40)	x–1230 (x–48 1/2)	x–1445 (x–57)	x–1588 (x–62 5/8)	x–1946 (x–76 3/4)	x–2305 (x–90 3/4)	x–2663 (x–104 7/8)	x–3021 (x–118 31/32)	x–3380 (x–133 1/8)	x–3738 (x–147 1/4)
	Max.	x–142 (x–5 5/8)											

To calculate the installation measurement (unit: mm)

SS: screen size measured diagonally (inches)

a ≈ (SS × 269.100/1.814) + 163

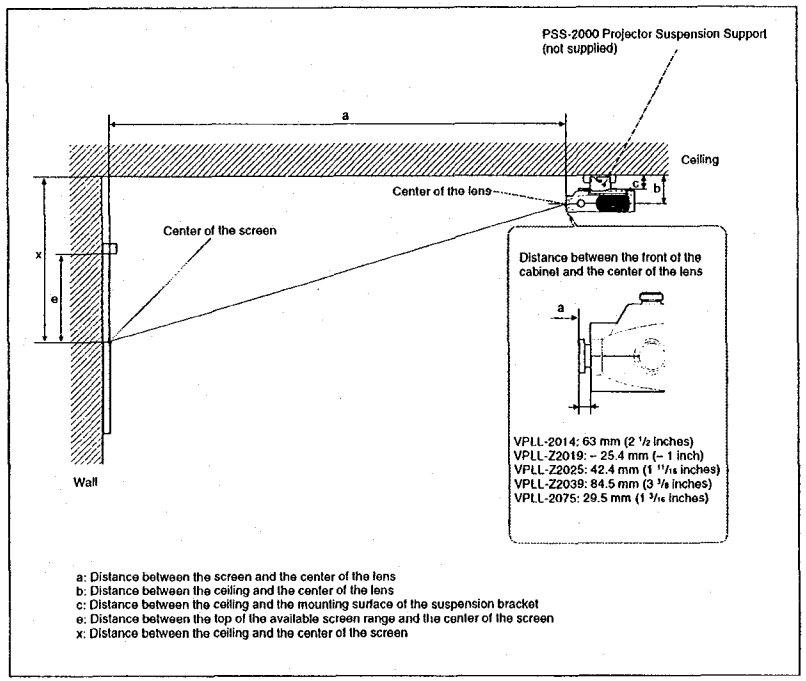
b (minimum) = x – (SS/1.814 × 13.0)

c (minimum) = x – (SS/1.814 × 13.0 + 155.0)

Installation Examples

Ceiling Installation

When installing the projector on the ceiling, use the PSS-2000 Projector Suspension Support.
For ceiling installation, ask for qualified Sony personnel only.



a: Distance between the screen and the center of the lens
b: Distance between the ceiling and the center of the lens
c: Distance between the ceiling and the mounting surface of the suspension bracket
e: Distance between the top of the available screen range and the center of the screen
x: Distance between the ceiling and the center of the screen

When using the VPLL-2014 fixed short focus lens

Unit: mm (inches)

Screen size (inches)		40	80	100	120	150	180	200	250	300	350	400	450	500
a		1030 (40 3/4)	2180 (85 7/8)	2760 (108 3/4)	3330 (131 1/4)	4200 (165 3/8)	5060 (199 1/4)	5640 (222 1/4)	7080 (278 7/8)	8520 (335 1/2)	9960 (392 1/4)	11400 (448 7/8)	12840 (505 1/4)	14280 (562 3/8)
b	Min.	c+131 (c+5 1/4)												
	Max.	c+140 (c+5 1/2)												
e		305 (12 1/8)	610 (24 1/8)	762 (30)	914 (36)	1143 (45)	1372 (54 1/8)	1524 (60)	1905 (75 1/8)	2286 (90 1/8)	2667 (105 1/8)	3048 (120 1/16)	3429 (135 1/8)	3810 (150 1/8)
x	Min.	c+131 (c+5 1/4)												
	Max.	c+338 (c+13 3/8)	c+536 (c+21 1/8)	c+636 (c+25 1/8)	c+735 (c+29)	c+884 (c+34 7/8)	c+1033 (c+40 3/4)	c+1132 (c+44 5/8)	c+1380 (c+54 3/8)	c+1628 (c+64 1/8)	c+1876 (c+73 7/8)	c+2124 (c+83 3/4)	c+2372 (c+93 1/2)	c+2620 (c+103 1/4)

When using the PSS-2000 Projector Suspension Support: c =104.7 (4 1/8), x (minimum) = e

To calculate the installation measurement (unit: mm)

SS: screen size measured diagonally (inches)
a = (SS × 52.244/1.814) – 123
e = SS × 0.3 × 25.4
x (maximum) = c + (SS/1.814 × 9.0 + 139.6)

When using the VPLL-Z2019 1.3-times zoom standard focus lens

Unit: mm (inches)

Screen size (inches)		40	80	100	120	150	180	200	250	300	350	400	450	500
a	Min.	1490 (58 3/4)	3080 (121 3/4)	3870 (152 1/2)	4670 (184)	5860 (230 3/4)	7050 (277 1/2)	7850 (309 1/4)	9840 (387 1/2)	11820 (465 1/2)	13810 (543 7/8)	15800 (622 1/4)	17790 (700 1/2)	19780 (778 7/8)
	Max.	1890 (74 1/2)	3880 (152 7/8)	4880 (192 1/4)	5870 (231 1/4)	7370 (290 1/4)	8860 (348 7/8)	9860 (388 1/4)	12350 (486 3/8)	14840 (584 3/8)	17330 (682 3/8)	19810 (780 1/8)	22300 (878 1/4)	24790 (976 1/4)
b	Min.	c+131 (c+5 1/4)												
	Max.	c+144 (c+5 3/4)												
e		305 (12 1/8)	610 (24 1/8)	762 (30)	914 (36)	1143 (45)	1372 (54 1/8)	1524 (60)	1905 (75 1/8)	2286 (90 1/8)	2667 (105 1/8)	3048 (120 1/16)	3429 (135 1/8)	3810 (150 1/8)
x	Min.	c+131 (c+5 1/4)												
	Max.	c+430 (c+17)	c+717 (c+28 1/4)	c+860 (c+33 7/8)	c+1003 (c+39 1/2)	c+1218 (c+48)	c+1433 (c+56 1/2)	c+1577 (c+62 1/8)	c+1935 (c+76 1/8)	c+2293 (c+90 3/8)	c+2652 (c+104 1/2)	c+3010 (c+118 5/32)	c+3368 (c+132 5/8)	c+3726 (c+146 7/8)

When using the PSS-2000 Projector Suspension Support: c =104.7 (4 1/8), x (minimum) = e

To calculate the installation measurement (unit: mm)

SS: screen size measured diagonally (inches)
a (minimum) = ((SS × 70.383/1.814) – 102) × 1.025
a (maximum) = ((SS × 92.644/1.814) – 104) × 0.975
e = SS × 0.3 × 25.4
x (maximum) = c + (SS/1.814 × 13.0 + 143.6)

Installation Examples

When using the VPLL-Z2025 1.6-times zoom long focus lens

Unit: mm (inches)

Screen size (inches)		80	100	120	150	180	200	250	300	350	400	450	500
a	Min.	3980 (156 3/4)	5020 (197 11/16)	6060 (238 3/8)	7620 (300 1/8)	9180 (361 1/2)	10220 (402 1/2)	12830 (505 1/4)	15430 (607 5/8)	18030 (709 15/16)	20630 (812 3/8)	23230 (914 3/4)	25830 (1017 1/8)
	Max.	6160 (242 3/4)	7750 (305 1/4)	9330 (367 3/4)	11710 (461 1/16)	14080 (554 1/2)	15660 (616 3/4)	19620 (772 5/8)	23580 (928 1/2)	27540 (1084 1/2)	31500 (1240 3/8)	35460 (1396 1/4)	39420 (1552 1/4)
b	Min.	c+131 (c+5 1/4)											
	Max.	c+144 (c+5 3/4)											
e		610 (24 1/4)	762 (30)	914 (36)	1143 (45)	1372 (54 1/4)	1524 (60)	1905 (75 1/4)	2286 (90 1/4)	2667 (105 1/4)	3048 (120 1/16)	3429 (135 1/4)	3810 (150 1/4)
x	Min.	c+131 (c+5 1/4)											
	Max.	c+717 (c+28 1/4)	c+860 (c+33 7/8)	c+1003 (c+39 1/2)	c+1218 (c+48)	c+1433 (c+56 1/2)	c+1577 (c+62 1/4)	c+1935 (c+76 1/4)	c+2293 (c+90 3/4)	c+2652 (c+104 1/2)	c+3010 (c+118 5/32)	c+3368 (c+132 5/8)	c+3726 (c+146 3/4)

When using the PSS-2000 Projector Suspension Support: c =104.7 (4 1/8), x (minimum) = e

To calculate the installation measurement (unit: mm)

SS: screen size measured diagonally (inches)
a (minimum) = ((SS × 92.078/1.814) – 176) × 1.025
a (maximum) = ((SS × 147.324/1.814) – 175) × 0.975
e = SS × 0.3 × 25.4
x (maximum) = c + (SS/1.814 × 13.0 + 143.6)

When using the VPLL-Z2039 1.5-times zoom long focus lens

Unit: mm (inches)

Screen size (inches)		80	100	120	150	180	200	250	300	350	400	450	500
a	Min.	6360 (250 1/2)	7990 (314 5/8)	9620 (378 3/4)	12070 (475 3/8)	14510 (571 3/8)	16150 (636)	20220 (796 1/4)	24300 (956 3/8)	28380 (1117 1/2)	32460 (1278 1/8)	36540 (1438 7/8)	40620 (1599 1/2)
	Max.	9150 (360 3/4)	11480 (452 1/4)	13810 (543 7/8)	17300 (681 1/4)	20790 (818 5/8)	23120 (910 3/4)	28940 (1139 5/8)	34760 (1368 3/4)	40570 (1597 1/2)	46390 (1826 5/8)	52210 (2055 7/8)	58030 (2284 15/16)
b	Min.	c+131 (c+5 1/4)											
	Max.	c+144 (c+5 3/4)											
e		610 (24 1/4)	762 (30)	914 (36)	1143 (45)	1372 (54 1/4)	1524 (60)	1905 (75 1/4)	2286 (90 1/4)	2667 (105 1/4)	3048 (120 1/16)	3429 (135 1/4)	3810 (150 1/4)
x	Min.	c+131 (c+5 1/4)											
	Max.	c+717 (c+28 1/4)	c+860 (c+33 7/8)	c+1003 (c+39 1/2)	c+1218 (c+48)	c+1433 (c+56 1/2)	c+1577 (c+62 1/4)	c+1935 (c+76 1/4)	c+2293 (c+90 3/4)	c+2652 (c+104 1/2)	c+3010 (c+118 5/32)	c+3368 (c+132 5/8)	c+3726 (c+146 3/4)

When using the PSS-2000 Projector Suspension Support: 104.7 (4 1/8), x (minimum) = e

To calculate the installation measurement (unit: mm)

SS: screen size measured diagonally (inches)
a (minimum) = ((SS × 144.368/1.814) – 163) × 1.025
a (maximum) = ((SS × 216.549/1.814) – 163) × 0.975
e = SS × 0.3 × 25.4
x (maximum) = c + (SS/1.814 × 13.0 + 143.6)

When using the VPLL-2075 fixed long focus lens

Unit: mm (inches)

Screen size (inches)		80	100	120	150	180	200	250	300	350	400	450	500
a		12030 (473 11/16)	15000 (590 3/4)	17960 (707 1/4)	22410 (882 1/2)	26860 (1057 3/4)	29830 (1174 3/4)	37250 (1466 3/4)	44660 (1758 1/2)	52080 (2050 3/4)	59500 (2342 7/8)	66910 (2634 1/4)	74330 (2926 3/4)
b	Min.	c+131 (c+5 1/4)											
	Max.	c+144 (c+5 3/4)											
e		610 (24 1/4)	762 (30)	914 (36)	1143 (45)	1372 (54 1/4)	1524 (60)	1905 (75 1/4)	2286 (90 1/4)	2667 (105 1/4)	3048 (120 1/16)	3429 (135 1/4)	3810 (150 1/4)
x	Min.	c+131 (c+5 1/4)											
	Max.	c+717 (c+28 1/4)	c+860 (c+33 7/8)	c+1003 (c+39 1/2)	c+1218 (c+48)	c+1433 (c+56 1/2)	c+1577 (c+62 1/4)	c+1935 (c+76 1/4)	c+2293 (c+90 3/4)	c+2652 (c+104 1/2)	c+3010 (c+118 5/32)	c+3368 (c+132 5/8)	c+3726 (c+146 3/4)

When using the PSS-2000 Projector Suspension Support: c =104.7 (4 1/8), x (minimum) = e

To calculate the installation measurement (unit: mm)

SS: screen size measured diagonally (inches)
a = (SS × 269.100/1.814) + 163
e = SS × 0.3 × 25.4
x (maximum) = c + (SS/1.814 × 13.0 + 143.6)

Installation Examples

Installing the Projectors Using the SU-PJ2000 Projector Stand

When installing the projectors using the SU-PJ2000 projector stand for stacking, install the projectors following the installation measurements below.

For details on how to install the SU-PJ2000 projector stand, refer to the installation manual supplied with the SU-PJ2000 projector stand.

Note on stacking

To properly align the pictures from both projectors, set the zoom to the center of the adjustment range.

1 Install the projector following the "a" value in the stacking example.
2 Use the zoom to align the pictures from the first and second projectors so that they fill the screen.

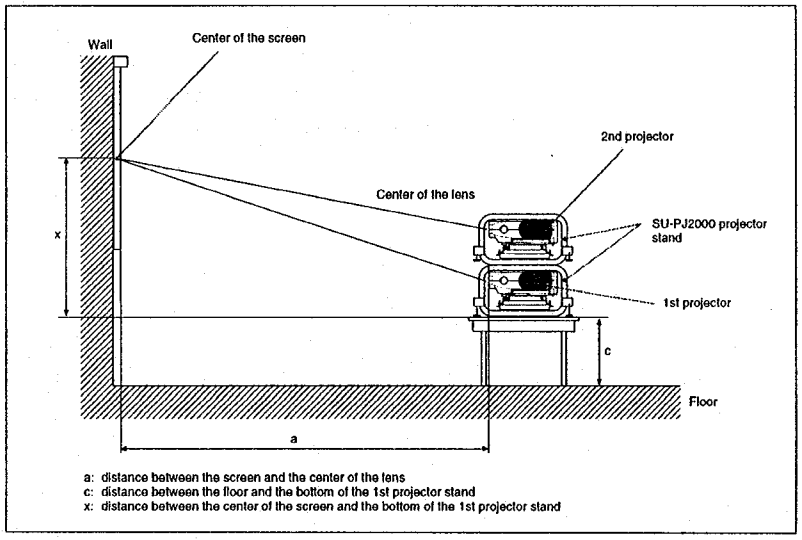
Available screen size for stacking

When attaching the VPLL-Z2019, VPLL-Z2025 and VPLL-Z2039 lens (not supplied), 80 to 500-inches screens are available for twin stack installation, and 100 to 500-inches screens are available for triple stack installation.

Notes

- If the VPLL-2009, VPLL-2014 or VPLL-2075 optional lens is mounted, you cannot perform stack installation.
- For safety and maintenance purposes, install the projectors away from the wall. Leave a minimum space of 30 cm (11 7/8 inches) from both sides and a minimum space of 70 cm (27 5/8 inches) from the rear.

Floor installation



a: distance between the screen and the center of the lens
c: distance between the floor and the bottom of the 1st projector stand
x: distance between the center of the screen and the bottom of the 1st projector stand

When using the VPLL-Z2019 1.3-times zoom standard focus lens

Unit: mm (inches)

Screen size (inches)		80	100	120	150	180	200	250	300	350	400	450	500
a		3710 (146 1/4)	4650 (183 1/4)	5600 (220 1/2)	7020 (276 7/16)	8430 (332)	9380 (369 3/8)	11740 (462 3/4)	14110 (555 5/8)	16470 (648 5/8)	18840 (741 7/8)	21200 (834 3/4)	23560 (927 3/4)
c*		40 (1 5/8)	192 (7 5/8)	345 (13 5/8)	573 (22 5/8)	802 (31 5/8)	954 (37 5/8)	1335 (52 5/8)	1716 (67 5/8)	2097 (82 5/8)	2478 (97 5/8)	2859 (112 5/8)	3240 (127 5/8)
x	Min.	570 (22 1/2)											
	Max.	804 (31 3/4)	947 (37 3/8)	1090 (43)	1305 (51 1/2)	1520 (59 7/8)	1664 (65 5/8)	2022 (79 5/8)	2380 (93 3/4)	2739 (107 7/8)	3097 (122)	3455 (136 1/8)	3813 (150 1/8)

* "c" is the minimum value for the picture not to be projected on the floor.

To calculate the installation measurement (unit: mm)

SS: screen size measured diagonally (inches)
a = SS × 85.777/1.814 – 76
c = SS × 0.30 × 25.4 – 569.6
x (maximum) = SS/1.814 × 13.0 + 230.6

When using the VPLL-Z2025 1.6-times zoom long focus lens

Unit: mm (inches)

Screen size (inches)		80	100	120	150	180	200	250	300	350	400	450	500
a		4530 (178 3/4)	5710 (224 7/8)	6890 (271 3/4)	8660 (341)	10420 (410 3/4)	11600 (456 3/4)	14540 (572 1/4)	17490 (688 3/4)	20430 (804 1/2)	23370 (920 1/4)	26320 (1036 3/4)	29260 (1152 1/4)
c*		40 (1 5/8)	192 (7 5/8)	345 (13 5/8)	573 (22 5/8)	802 (31 5/8)	954 (37 5/8)	1335 (52 5/8)	1716 (67 5/8)	2097 (82 5/8)	2478 (97 5/8)	2859 (112 5/8)	3240 (127 5/8)
x	Min.	570 (22 1/2)											
	Max.	804 (31 3/4)	947 (37 3/8)	1090 (43)	1305 (51 1/2)	1520 (59 7/8)	1664 (65 5/8)	2022 (79 5/8)	2380 (93 3/4)	2739 (107 7/8)	3097 (122)	3455 (136 1/8)	3813 (150 1/8)

* "c" is the minimum value for the picture not to be projected on the floor.

To calculate the installation measurement (unit: mm)

SS: screen size measured diagonally (inches)
a = SS × 106.811/1.814 – 176
c = SS × 0.30 × 25.4 – 569.6
x (maximum) = SS/1.814 × 13.0 + 230.6

When using the VPLL-Z2039 1.5-times zoom long focus lens

Unit: mm (inches)

Screen size (inches)		80	100	120	150	180	200	250	300	350	400	450	500
a		6940 (269 3/4)	8590 (338 1/4)	10340 (407 1/4)	12970 (510 3/4)	15590 (613 7/8)	17340 (682 7/8)	21720 (855 1/4)	26100 (1027 3/4)	30470 (1199 7/8)	34850 (1372 1/4)	39230 (1544 3/4)	43600 (1716 3/4)
c*		40 (1 5/8)	192 (7 5/8)	345 (13 5/8)	573 (22 5/8)	802 (31 5/8)	954 (37 5/8)	1335 (52 5/8)	1716 (67 5/8)	2097 (82 5/8)	2478 (97 5/8)	2859 (112 5/8)	3240 (127 5/8)
x	Min.	570 (22 1/2)											
	Max.	804 (31 3/4)	947 (37 3/8)	1090 (43)	1305 (51 1/2)	1520 (59 7/8)	1664 (65 5/8)	2022 (79 5/8)	2380 (93 3/4)	2739 (107 7/8)	3097 (122)	3455 (136 1/8)	3813 (150 1/8)

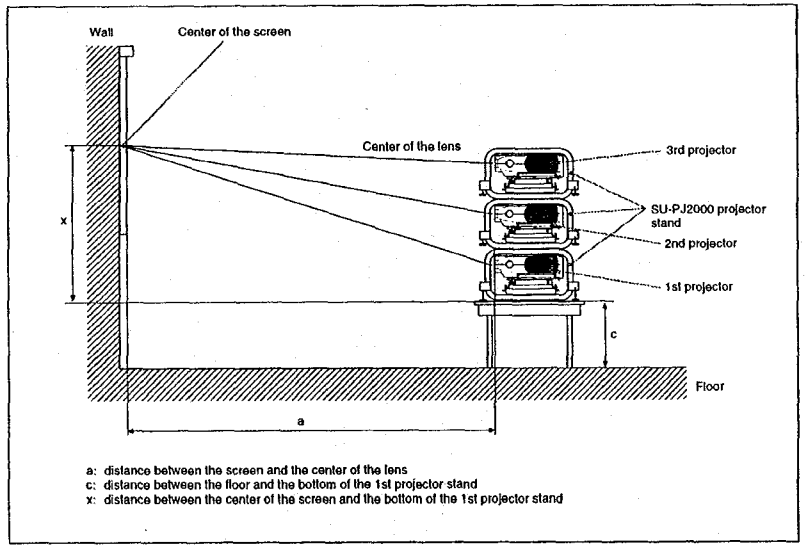
* "c" is the minimum value for the picture not to be projected on the floor.

To calculate the installation measurement (unit: mm)

SS: screen size measured diagonally (inches)
a = SS × 158.802/1.814 – 163
c = SS × 0.30 × 25.4 – 569.6
x (maximum) = SS/1.814 × 13.0 + 230.6

Installation Examples

Floor installation for triple-stacking



a: distance between the screen and the center of the lens
c: distance between the floor and the bottom of the 1st projector stand
x: distance between the center of the screen and the bottom of the 1st projector stand

When using the VPLL-Z2019 1.3-times zoom standard focus lens

Unit: mm (inches)

Screen size (inches)		100	120	150	180	200	250	300	350	400	450	500
a		4650 (183 1/4)	5600 (220 1/2)	7020 (276 7/16)	8430 (332)	9380 (369 3/4)	11740 (462 3/4)	14110 (555 5/8)	16470 (648 5/8)	18840 (741 7/8)	21200 (834 3/4)	23560 (927 3/4)
c*		0 (0)	0 (0)	221 (8 3/4)	450 (17 3/4)	602 (23 3/4)	983 (38 3/4)	1364 (53 3/4)	1745 (68 3/4)	2126 (83 3/4)	2507 (98 3/4)	2888 (113 3/4)
x	Min.	922 (36 3/4)										
	Max.	947 (37 3/4)	1090 (43)	1305 (51 1/2)	1520 (59 7/8)	1664 (65 5/8)	2022 (79 3/4)	2380 (93 3/4)	2739 (107 7/8)	3097 (122)	3455 (136 1/8)	3813 (150 1/4)

* "c" is the minimum value for the picture not to be projected on the floor.

To calculate the installation measurement (unit: mm)

SS: screen size measured diagonally (inches)
$a = SS \times 85.777/1.814 - 76$
$c = SS \times 0.30 \times 25.4 - 921.6$
x (maximum) = $SS/1.814 \times 13.0 + 230.6$

When using the VPLL-Z2025 1.6-times zoom long focus lens

Unit: mm (inches)

Screen size (inches)		100	120	150	180	200	250	300	350	400	450	500
a		5710 (224 7/8)	6890 (271 3/4)	8660 (341)	10420 (410 3/8)	11600 (456 1/4)	14540 (572 5/8)	17490 (688 3/4)	20430 (804 1/2)	23370 (920 1/4)	26320 (1036 3/4)	29260 (1152 1/8)
c*		0 (0)	0 (0)	221 (8 3/4)	450 (17 3/4)	602 (23 3/4)	983 (38 3/4)	1364 (53 3/4)	1745 (68 3/4)	2126 (83 3/4)	2507 (98 3/4)	2888 (113 3/4)
x	Min.	922 (36 3/4)										
	Max.	947 (37 3/4)	1090 (43)	1305 (51 1/2)	1520 (59 7/8)	1664 (65 5/8)	2022 (79 3/4)	2380 (93 3/4)	2739 (107 7/8)	3097 (122)	3455 (136 1/8)	3813 (150 1/4)

* "c" is the minimum value for the picture not to be projected on the floor.

To calculate the installation measurement (unit: mm)

SS: screen size measured diagonally (inches)
$a = SS \times 106.811/1.814 - 176$
$c = SS \times 0.30 \times 25.4 - 921.6$
x (maximum) = $SS/1.814 \times 13.0 + 230.6$

When using the VPLL-Z2039 1.5-times zoom long focus lens

Unit: mm (inches)

Screen size (inches)		100	120	150	180	200	250	300	350	400	450	500
a		8590 (338 1/4)	10340 (407 1/4)	12970 (510 3/4)	15590 (613 7/8)	17340 (682 7/8)	21720 (855 1/4)	26100 (1027 3/4)	30470 (1199 7/8)	34850 (1372 1/4)	39230 (1544 3/4)	43600 (1716 3/4)
c*		0 (0)	0 (0)	221 (8 3/4)	450 (17 3/4)	602 (23 3/4)	983 (38 3/4)	1364 (53 3/4)	1745 (68 3/4)	2126 (83 3/4)	2507 (98 3/4)	2888 (113 3/4)
x	Min.	922 (36 3/4)										
	Max.	947 (37 3/4)	1090 (43)	1305 (51 1/2)	1520 (59 7/8)	1664 (65 5/8)	2022 (79 3/4)	2380 (93 3/4)	2739 (107 7/8)	3097 (122)	3455 (136 1/8)	3813 (150 1/4)

* "c" is the minimum value for the picture not to be projected on the floor.

To calculate the installation measurement (unit: mm)

SS: screen size measured diagonally (inches)
$a = SS \times 158.802/1.814 - 163$
$c = SS \times 0.30 \times 25.4 - 921.6$
x (maximum) = $SS/1.814 \times 13.0 + 230.6$

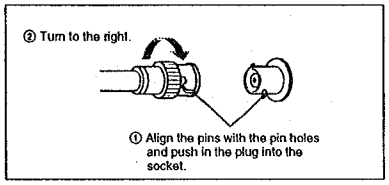
Connection Examples

Also refer to the instruction manual of the equipment to be connected.

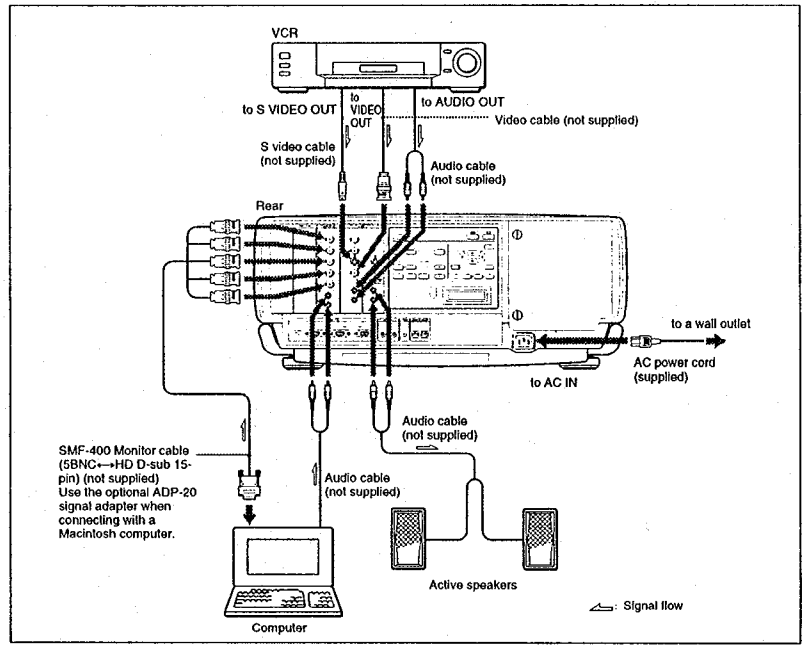
When making connections, be sure to:
- turn off all equipment before making any connections.
- use the proper cables for each connection.
- insert the plugs of the cables properly; plugs that are not fully inserted may generate noise. When pulling out a cable, be sure to pull it out from the plug, not the cable itself.

Note on the VPL-X2000E model
The optional IFB-X2000E interface board is required for using the VIDEO connectors.

Connecting a BNC connector

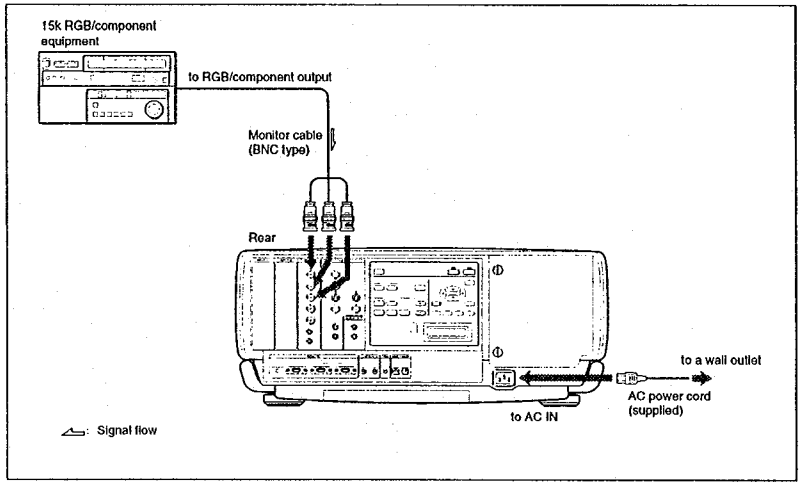


Connecting with a Computer, VCR or Active Speakers


VCR
to S VIDEO OUT
to VIDEO OUT
to AUDIO OUT
Video cable (not supplied)
S video cable (not supplied)
Audio cable (not supplied)
Rear
to a wall outlet
AC power cord (supplied)
to AC IN
Audio cable (not supplied)
SMF-400 Monitor cable (5BNC↔HD D-sub 15-pin) (not supplied) Use the optional ADP-20 signal adapter when connecting with a Macintosh computer.
Audio cable (not supplied)
Active speakers
Signal flow
Computer

Note
Set INPUT-A in the SIGNAL SELECT menu to RGB.
For details, see page 57 (GB).

Connecting 15k RGB/Component Equipment



Note
Switch the input signal with the INPUT-A item in the SIGNAL SELECT menu.
For details, see page 57 (GB).

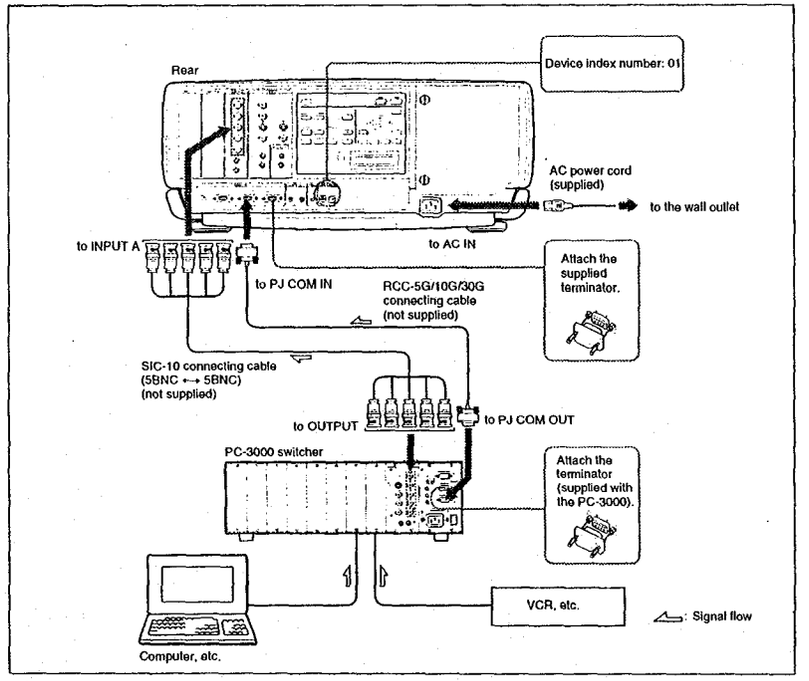
Connecting the Switcher

Use the optional PC-3000 Signal Interface Switcher for connecting various video equipment. The input can be selected by pressing the SWITCHER/VIDEO MEMORY/INDEX keys on the Remote Commander.
For selecting the input from the switcher, see page 17 (GB).

Notes

- When you select the input from the switcher, be sure to set the SWITCHER/VIDEO MEMORY/INDEX select switch to the SWITCHER position.
- When connecting the switcher, use the wired Remote Commander. If you use the wireless Remote Commander, activate the remote control detector on only one unit of the equipment connected through the PJ COM connector. For the other equipment, set SIRCS RECEIVER in the SET SETTING menu to OFF to deactivate the remote control detectors.
For details, see page 56 (GB).
- After all the connections are complete, attach the terminator (supplied) to the PJ COM connector on both the projector and switcher to which nothing is connected.

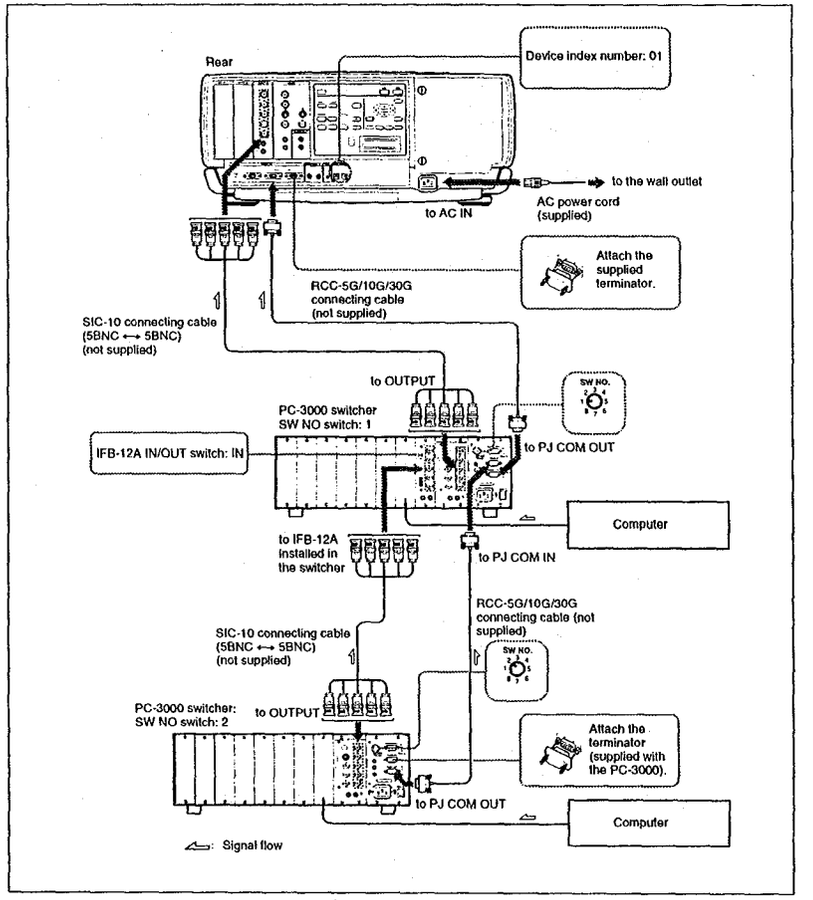
To connect a single switcher



To connect two switchers

Notes

- Set the device index number of the projector to be connected to the switcher to 01.
- Set the SW NO switch on the switcher to be connected to the projector to 1. Install the IFB-12A interface board onto the switcher, and set the IN/OUT switch on the IFB-12A to IN.


Rear
Device index number: 01
to the wall outlet
AC power cord (supplied)
to AC IN
Attach the supplied terminator.
RCC-5G/10G/30G connecting cable (not supplied)
SIC-10 connecting cable (5BNC ⟷ 5BNC) (not supplied)
to OUTPUT
SW NO.
PC-3000 switcher SW NO switch: 1
IFB-12A IN/OUT switch: IN
to PJ COM OUT
Computer
to IFB-12A installed in the switcher
to PJ COM IN
RCC-5G/10G/30G connecting cable (not supplied)
SIC-10 connecting cable (5BNC ⟷ 5BNC) (not supplied)
PC-3000 switcher: SW NO switch: 2
to OUTPUT
Attach the terminator (supplied with the PC-3000).
to PJ COM OUT
Computer
: Signal flow

Connection Examples

Connecting Multiple Projectors

Following are examples of multiple projectors installed onto the optional SU-PJ2000 projector stand, such as by stacking.

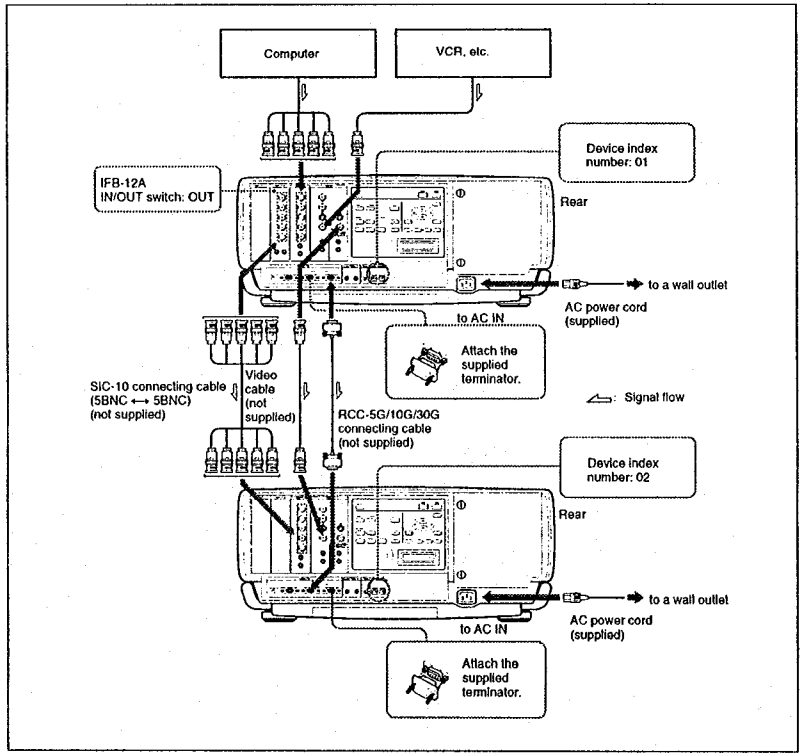
For details on the SU-PJ2000 projector stand, refer to the installation manual supplied with it.

When not using the switcher

Install the optional IFB-12A interface board in the first projector.
Set the IN/OUT switch on the IFB-12A to OUT.
For details on the IFB-12A interface board, refer to the operating instructions supplied with it.

Note

Installing the interface board and setting up the switch must be done while the power of the projector is off.

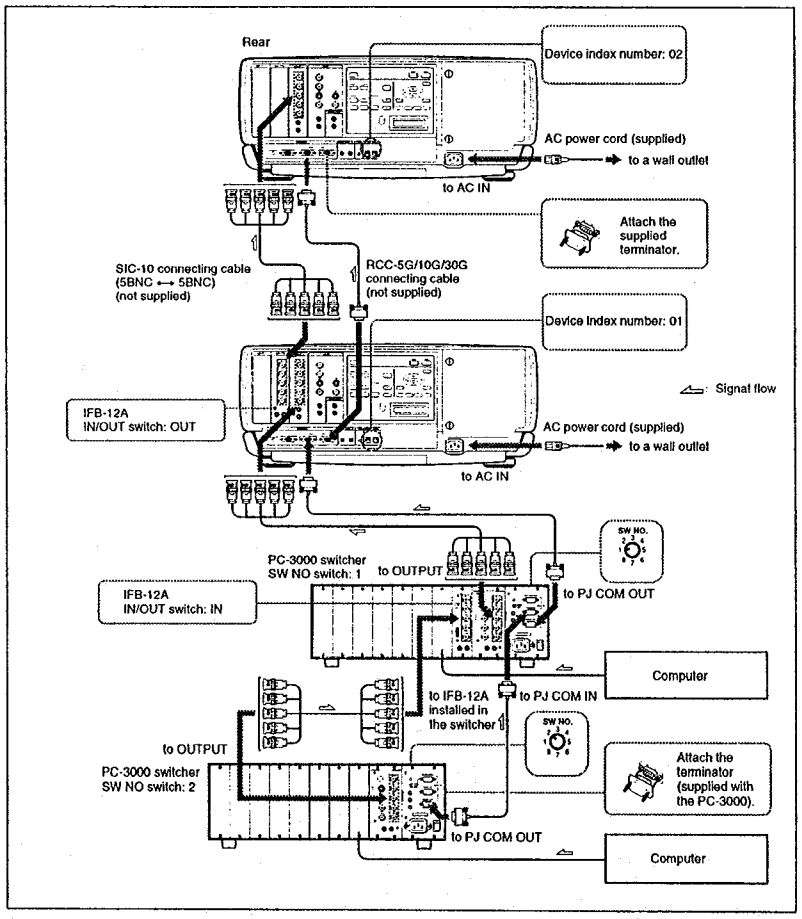


When using the switcher

When connecting two PC-3000 switchers, up to 15 inputs can be selected as the input from the switchers. Install the IFB-12A interface board in the first switcher (on which you set the SW NO switch to 1) and set the IN/OUT switch on the board to IN.

Notes

- Be sure to set the switcher number.
- Be sure to turn off the power of the projector when setting up the device index number and connecting cables.



Confirming the System Construction

After all the connections are complete, confirm that equipment of the system is properly setup.

1 Connect the AC cords of all equipment to the AC outlets.

2 Press the SYS SET key on the Remote Commander.
You can also press the LIGHT and RESET keys simultaneously on the control panel for the same effect.
Information on the system construction and the settings of the interface boards, etc. are automatically confirmed. Then the message disappears.

Note

When you want to use the projector without connecting the switcher after using the switcher in the system connections, it is necessary to confirm the system construction again by pressing the SYS SET key or the LIGHT and RESET keys after all the connections are complete. If you press the key(s), "Master Switcher not exist" appears, but the system construction is automatically recognized.

When a system error is detected

The following messages are displayed on the screen and display window:

Message	Remedy
Master Switcher not exist.	Set the switcher that outputs the signal to the projector to number 1.
Same DEVICE INDEX for Projector detected.	Change either number of the projectors that have the same number.
Same DEVICE INDEX for Switcher detected.	Change either number of the switchers that have the same number.

Note

If the switcher is in standby mode, the message appears only in the message display window.

Setting the Index Numbers

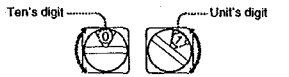
When you connect multiple projectors in your system, you have to set the group index and device index numbers for each projector.

To set the group index number

If you set the same group index number for multiple projectors, you can operate multiple projectors and switchers simultaneously (such as input selection) by designating the number.
The group index number can be set in the menu.
For group index number setting, see page 56 (GB).

To set the device index number

If you set the device index number, you can control each projector individually with the supplied Remote Commander.
The device index number can be set with the DEVICE INDEX switches on the rear of the projector. It is set to "01" at the factory.
If only one projector is connected, set it to "01."



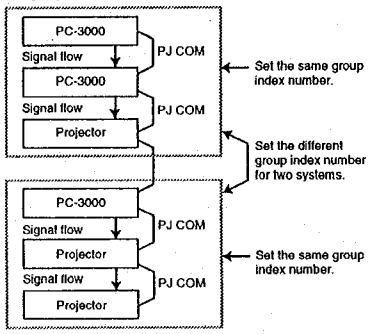
Notes

- Do not set the same device index number for the projectors in the same system.
- Do not set the number to "00." If you do, the projector will be operated only with the keys on the control panel. It cannot be controlled with the wired or wireless Remote Commander, or with an external equipment to which the PJ COM connectors are connected.

Setting the Index Numbers

Notes on setting of the index number

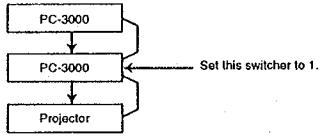
- **Set the same group index number for all equipment of the same system connection (those on the signal route between the signal source and the projector).**



For setting the group index number, see "GROUP INDEX" on page 56 (GB).

- **Set the correct group and device index numbers and the switcher number.**
  Do not set the same device index number or the same switcher number in one group.
  For example, if there are different pieces of equipment with the switcher number 1, the error message will appear when the SYS SET key is pressed.

- **Set the switcher that outputs the signal to the projector to number 1.**

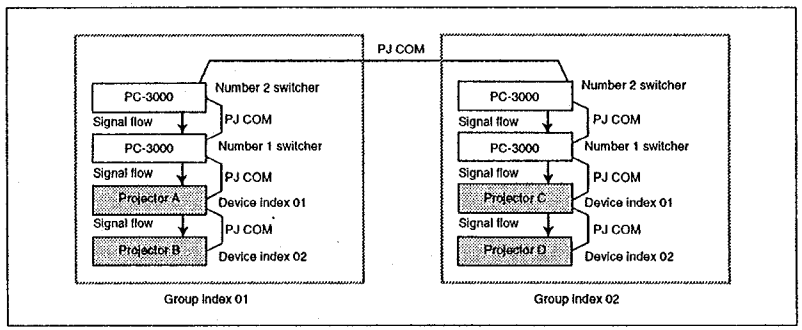


Notes on connections when two or more switchers are used

- **Mount the IFB-12A interface board to the slot 1 of the number n switcher and connect the output connector of the number (n+1) switcher to the IFB-12A.**
- **You can attach the IFB-12A signal interface board (when the IN/OUT switch is set to OUT) only to the number 1 switcher.**

To select the projector by designating the index numbers

When the switchers and projectors are connected as illustrated, select the desired projector by pressing the keys on the Remote Commander as shown below.



Example:
To select all the projectors
GROUP → ALL → ENTER → ALL → ENTER
Projectors A, B, C and D are selected.

To select projectors with device index 01 from all the groups
GROUP → ALL → ENTER → 1 → ENTER
Projectors A and C are selected.

To select a projector with device index 01 from group index 02
GROUP → 2 → ENTER → 1 → ENTER
Projector C is selected.

To select all the projectors from group index 02
GROUP → 2 → ENTER → ALL → ENTER
Projectors C and D are selected.

Notes

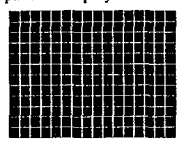
- Set the group index and device index numbers correctly. If more than two projectors are set to the same group index and device index numbers, an error message will be displayed when the SYS SET key is pressed.
- If the group index is a tens digit number, press the GROUP key before each press of the number key.

Example:
To select a projector with device index 13 of group index 12
GROUP → 1 → GROUP → 2 → ENTER → 1 → 3 → ENTER

Adjusting the Picture

This section describes how to adjust the focus, size and vertical position of the picture when the projector is installed on the floor. For twin/triple stack installation, refer to the Installation Manual supplied with the SU-PJ2000 projector stand.

1 Press the PATTERN key on the Remote Commander or the control panel to display the HATCH pattern.



2 Press the FOCUS key then the ↑ or ↓ key on the Remote Commander or the control panel to adjust the focus.

"FOCUS" appears on the screen during adjustment.

3 Press the ZOOM key then the ↑ or ↓ key on the Remote Commander or the control panel to adjust the picture size.

"ZOOM" appears on the screen during adjustment.

Note

If the optional VPLL-2075, VPLL-2014 or VPLL-2009 lens is installed, you cannot adjust the zoom.

4 Press the FOCUS and arrow keys on the Remote Commander or the control panel to adjust the focus again.

"FOCUS" appears on the screen during adjustment.

5 Press the SHIFT key then the arrow keys on the Remote Commander or the control panel to adjust the vertical position of the picture.

"PICTURE SHIFT" appears on the screen during adjustment.

6 Press the PATTERN key again to clear the HATCH pattern.

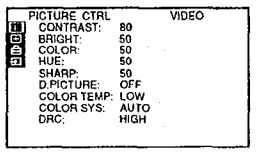
Note

Do not look into the lens when the projector lamp is on.

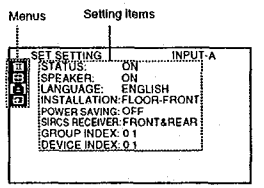
Using the Menu

The projector is equipped with an on-screen menu for making various adjustments and settings.
Unadjustable items are not displayed in the menu.
To change the language used in the menu, see page 55 (GB).

1 Press the MENU key.
The menu display appears.
The menu presently selected is highlighted in yellow.



2 Use the ↑ or ↓ key to select a menu, then press the → or the ENTER key.
The setting items of the selected menu are displayed.



3 Make setting or adjustment on an item.
For details on setting individual items, see the relevant menu pages.

To erase the menu display

Press the MENU key. The menu display also disappears automatically if no key is pressed for one minute.

To reset settings that have been adjusted

Press the RESET key.
"Reset complete!" appears on the screen and the settings appearing on the screen will be reset to their factory preset values.

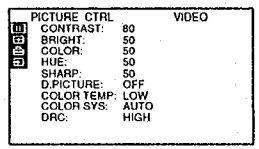
Items that can be reset are as follows:
CONTRAST, BRIGHT, COLOR, HUE, SHARP, DOT PHASE, SIZE, SHIFT and BLANKING.

About the memory of the settings

The settings are automatically stored in the projector memory.

The PICTURE CTRL Menu

The PICTURE CTRL menu is used for adjusting the picture. Unadjustable items are not displayed in the menu.



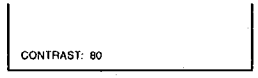
Operation

1. Select an item
Use the ↑ or ↓ key to select the item, then press the → or the ENTER key.

2. Adjust an item
- **When changing the adjustment level:**
  To increase the number, press the ↑ or → key.
  To decrease the number, press the ↓ or ← key.
  Press the ENTER key to restore the original screen.
- **When changing the setting:**
  Press the ↑ or ↓ key to change the setting, then press the ← or the ENTER key.
  The original screen is restored.

CONTRAST

Adjusts the picture contrast.



The higher the setting, the greater the contrast.
The lower the setting, the lower the contrast.

BRIGHT (Brightness)

Adjusts the picture brightness.

The higher the setting, the brighter the picture.
The lower the setting, the darker the picture.

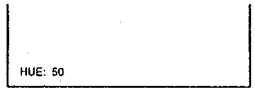
COLOR

Adjusts color intensity.

The higher the setting, the greater the intensity.
The lower the setting, the lower the intensity.

HUE

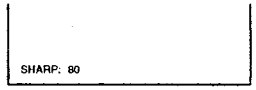
Adjusts skin tones.



At high settings, the picture becomes greenish.
At low settings, the picture becomes purplish.

SHARP (Sharpness)

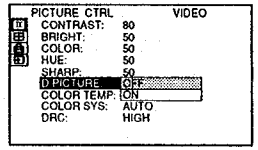
Adjusts the picture sharpness.



The higher the setting, the sharper the picture.
The lower the setting, the softer the picture.

D. (Dynamic) PICTURE

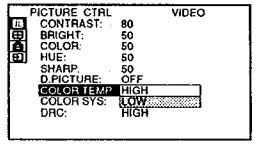
Emphasizes the black color.



ON: Emphasizes the black color to produce a bolder "dynamic" picture.
OFF: Reproduces the dark portions of the picture accurately, in accordance with the source signal.

COLOR TEMP (temperature)

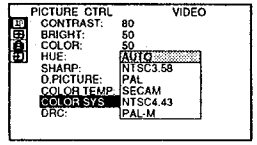
Adjusts the color temperature.



HIGH: Makes the white color bluish.
LOW: Makes the white color reddish.

COLOR SYS (system)

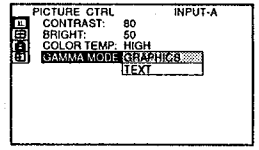
Selects the color system of the input signal.



Normally, set to AUTO.
If the picture is distorted or colorless, select the color system (NTSC3.58/PAL/SECAM/NTSC4.43/PAL-M) according to the input signal.

GAMMA MODE

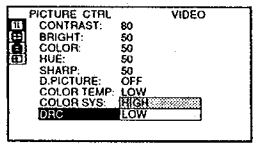
Select either position to obtain an optimum picture.



GRAPHICS: Improves the reproduction of half tones. Photos can be reproduced in natural tones.
TEXT: Contrasts black and white. Suitable for images with lots of text.

DRC (Digital Reality Creation)

Selects the level of DRC effects.



HIGH: Increases the DRC effects.
LOW: Decreases the DRC effects.

Input signals and adjustable/setting items

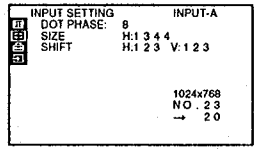
Item	Input signal					
	Video or S video	15k RGB	Compo-nent	RGB (preset)	RGB (preset) (HDTV-Y/PB/PR)	RGB (not preset)
CONTRAST	Y	Y	Y	Y	Y	Y
BRIGHT	Y	Y	Y	Y	Y	Y
COLOR	Y	N	Y	N	Y	N
HUE	Y (NTSC 3.58/ 4.43[1] only)	N	N	N	Y	N
SHARP	Y	N	Y	N	Y	N
D. PICTURE	Y	N	Y	N	N	N
COLOR TEMP	Y	Y	Y	Y	Y	Y
COLOR SYS	Y	N	N	N	N	N
GAMMA MODE	N	N	N	Y	N	Y
DRC	Y	Y	Y	N	N	N

Y: Adjustable/can be set
N: Not adjustable/cannot be set

1) NTSC4.43 is the color system used when playing back a video recorded in NTSC color system on a NTSC4.43 system VCR.

The INPUT SETTING Menu

The INPUT SETTING menu is used to change the settings of the input signal. Unadjustable items, which vary according to the input signal, are not displayed in the menu.



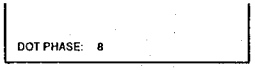
Operation

1. Select an item
Use the V or v key to select the item, then press the b or the ENTER key.

2. Adjust an item
- **When changing the adjustment level:**
  To increase the number, press the V or b key.
  To decrease the number, press the v or B key.
  Press the ENTER key to restore the original screen.
- **When changing the setting:**
  Press the V or v key to change the setting, then press the B or the ENTER key.
  The original screen is restored.

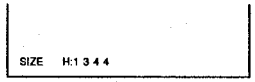
DOT PHASE

Adjusts the phase of the LCD panel and the input signal when H FILTER is set to OFF.
Adjust the value to obtain the clearest picture.



SIZE

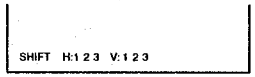
Adjusts the horizontal size of the picture.



As the setting for H increases, the horizontal size of the picture becomes larger, and as the setting decreases, the size becomes smaller. Adjust the setting according to the input signal.
Use the B or b key to adjust the horizontal size.

SHIFT

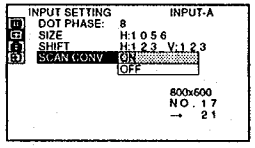
Adjusts the position of the picture.



H adjusts the horizontal position of the picture, and V adjusts the vertical position. As the setting for H increases, the picture moves to the right, and as the setting decreases, it moves to the left.
As the setting for V increases, the picture moves up, and as the setting decreases, it moves down.
Use the B or b key to adjust the horizontal position and the V or v key for the vertical position.

SCAN CONV (converter)

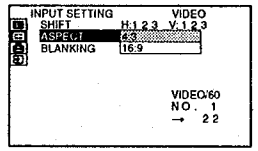
Converts the signal to display the picture according to the screen size.



ON: Displays the picture according to the screen size. The picture will lose some clarity.
OFF: Displays the picture while matching one pixel of input picture element to that of the LCD. The picture will be clear but the picture size will be smaller.

ASPECT

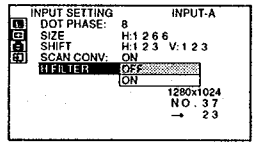
Sets the aspect ratio of the picture.
When inputting 16:9 (squeezed) signal from equipment such as a DVD player, set to 16:9.



4:3: When the picture with ratio 4:3 is input
16:9: When the picture with ratio 16:9 (squeezed) is input.

H FILTER

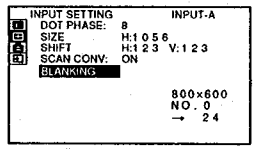
Corrects the vertical bands that appear on the picture.



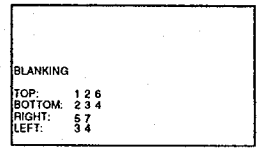
The vertical bands may occur when an RGB signal with horizontal resolution of more than 1024 × 768 pixels is input. In such cases, set to ON. The picture will loose some clarity, but the vertical bands will be reduced. Set to OFF to associate a dot of the input signal with a pixel of the LCD.

BLANKING

Adjusts if excess signals are seen with the picture, or the whole picture is not seen clearly.



Select BLANKING, then press the ENTER key to display the blanking adjustment screen.



Use the V or v key to select the part to be adjusted, and the B or b key to adjust.

Input signals and adjustable/setting items

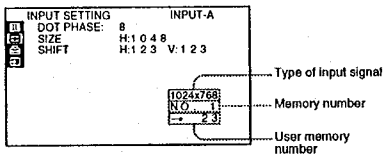
Item	Input signal				
	Video or S video	15k RGB	Compo-nent	RGB (preset)	RGB (not preset)
DOT PHASE	N	N	N	Y (except for HDTV)	Y
SIZE	N	N	N	Y	Y
SHIFT	Y	Y	Y	Y	Y
SCAN CONV	N	N	N	Y (Only for lower resolution than SVGA)	Y
ASPECT	Y	Y	Y	N	N
H FILTER	N	N	N	Y (Higher resolution than XGA)	Y (Higher resolution than XGA)
BLANKING	Y (TOP and BOTTOM only)	Y (TOP and BOTTOM only)	Y (TOP and BOTTOM only)	Y (HDTV-GBR, HDTV-$Y/P_B/P_R$ only)	Y

Y: Adjustable/can be set
N: Not adjustable/cannot be set

The INPUT SETTING Menu

INPUT MEMORY No.

The upper number indicates the memory number of the current input signal. The lower number indicates the user memory number.



About the memory function

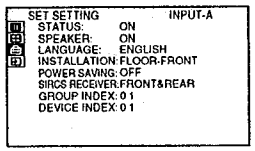
The adjustment data for 39 types of input signals are preset at the factory (preset memory).
When a signal is input to the projector, the signal type is automatimally detected and the data for the signal is called from the memory to display an optimum picture.
The data can be adjusted in the INPUT SETTING menu and the adjusted data will be saved as user memory.
When you save more than 200 user memories, the newest one always overwrites the oldest one.
The saved user memory number is displayed in the INPUT SETTING menu as n NO. □□.
When an RGB signal other than the preset signals is input to the projector, the memory number is displayed as 0 and the closest option is automatically selected from the preset 39 types of signals.

Memory No.	Preset signal		fH (kHz)	fV (Hz)	Sync	Horizontal size
1	Video 60 Hz		15.73	59.94	—	—
2	Video 50 Hz		15.63	50.00	—	—
3	15k RGB (60 Hz)		15.73	59.94	S on G	—
4	15k RGB (50 Hz)		15.63	50.00	S on G	—
5	HDTV		33.75	60.00	S on Y/G	1235
6	640 x 350	VGA-1 (VGA350)	31.47	70.09	H-pos V-neg	800
7		VESA* 85(VGA350)	37.86	85.08	H-pos V-neg	832
8	640 x 400	NEC PC98	24.82	54.42	H-neg V-neg	848
9		VGA-2 (TEXT) /VESA70	31.47	70.09	H-neg V-pos	800
10		VESA 85 (VGA400)	37.86	85.08	H-neg V-pos	832
11	640 x 480	VGA VESA60	31.47	59.94	H-neg V-neg	800
12		Mac 13	35.00	66.67	S on G	—
13		VGA VESA 72	37.86	72.81	H-neg V-neg	832
14		VGA VESA 75 (IBM M3)	37.50	75.00	H-neg V-neg	840
15		VGA VESA 85 (IBM M4)	43.27	85.01	H-neg V-neg	832
16	800 x 600	SVGA VESA 56	35.16	56.25	H-pos V-pos	1024
17		SVGA VESA 60	37.88	60.32	H-pos V-pos	1056
18		SVGA VESA 72	48.08	72.19	H-pos V-pos	1040
19		SVGA VESA 75 (IBM M5)	46.88	75.00	H-pos V-pos	1056
20		SVGA VESA 85	53.67	85.06	H-pos V-pos	1048
21	832 x 624	Mac 16	49.72	74.55	H-neg V-neg	1152
22	1024 x 768	XGA VESA 43 (8514)	35.52	86.96	H-pos V-pos	1264
23		XGA VESA 60	48.36	60.00	H-neg V-neg	1344
24		XGA VESA 70	56.48	69.96	H-neg V-neg	1328
25		XGA VESA 75	60.02	75.03	H-pos V-pos	1312
26		XGA VESA 85	68.68	85.00	H-pos V-pos	1376
27	1152 x 864	VESA 70	64.00	70.02	H-pos V-pos	1308
28		VESA 75	67.50	75.00	H-pos V-pos	1422
29		VESA 85	77.49	85.06	H-pos V-pos	1394
30	1152 x 900	SUN LO	61.80	65.96	H-neg V-neg	1283
31		SUN HI	71.71	76.05	C-neg	1256
32	1280 x 960	VESA 60	60.00	60.00	H-pos V-pos	1440
33		VESA 75	75.00	75.00	H-pos V-pos	1382
34	1280 x 1024	SXGA VESA 43	46.43	86.87	H-pos V-pos	1272
35		SGI-5	53.32	50.06	S on G	1260
36		SXGA VESA 60	63.97	60.01	H-pos V-pos	1272
37		SXGA VESA 75	79.98	75.03	H-pos V-pos	1266
38		SXGA VESA 85	91.15	85.02	H-pos V-pos	1296
39	1600 x 1200	UXGA VESA 60	75.00	60.00	H-pos V-pos	1352

* VESA is a registered trademark of Video Electronics Standard Association.

The SET SETTING Menu

The SET SETTING menu is used for changing the initial settings of the projector. Unadjustable items are not displayed in the menu.



Operation

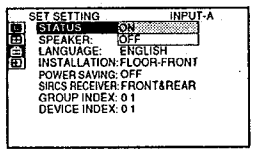
1. Select an item
Use the ↑ or ↓ key to select the item, then press the → key or the ENTER key.

2. Adjust an item
• When changing the adjustment level:
To increase the number, press the ↑ or → key.
To decrease the number, press the ↓ or ← key.
Press the ENTER key to restore the original screen.

• When changing the setting:
Press the ↑ or ↓ key to change the setting, then press the ← or the ENTER key.
The original screen is restored.

STATUS

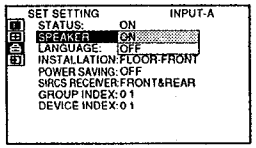
Sets up the on-screen display.



ON: Shows all of the on-screen displays.
OFF: Turns off the on-screen displays except for the menus and warning messages.

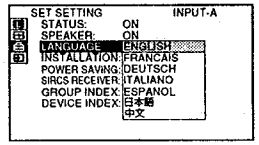
SPEAKER

Set to OFF to cut off the sound of the internal speaker when external speakers are connected. When set to OFF, "SPEAKER OFF" appears on the screen when you turn on the power.



LANGUAGE

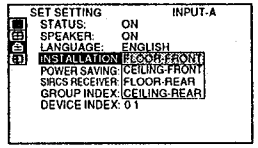
Selects the language used in the menu and on-screen displays.



Available languages are: English, French, German, Italian, Spanish, Japanese and Chinese.

INSTALLATION

Reverses the picture horizontally or vertically.

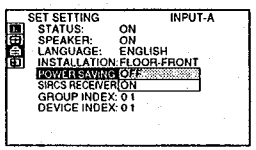


FLOOR-FRONT: The picture is not reversed.
CEILING-FRONT: The picture is reversed horizontally and vertically.
FLOOR-REAR: The picture is reversed horizontally.
CEILING-REAR: The picture is reversed vertically.

Note
In case of using a mirror, be careful of installation since the picture may be reversed.

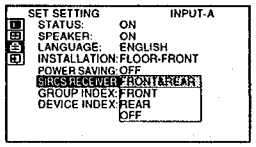
POWER SAVING

When set to ON, the projector goes into the power saving mode and the lamp for light source turns off if no signal is input for about 10 minutes.
The power saving mode is canceled when a signal is input or any key is pressed.



SIRCS RECEIVER

Selects the remote control detectors to be activated. Change the setting if the wireless Remote Commander does not work properly due to the influence of the fluorescent lamp, etc.



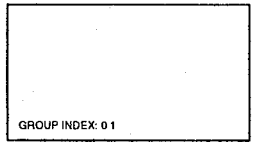
FRONT & REAR: Activates both the front and rear detectors.
FRONT: Activates the front detector only.
REAR: Activates the rear detector only.
OFF: Activates neither the front nor rear detector.

Note

When set to OFF, the wireless Remote Commander does not function. Use the keys on the control panel or the wired Remote Commander.

GROUP INDEX

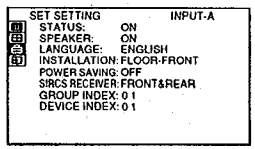
Groups multiple projectors or switchers to operate them simultaneously.



You can set the group index number to the desired number between 01 and 99.

DEVICE INDEX

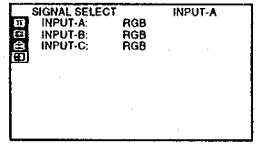
Displays the index number set with the INDEX switches on the rear of the projector. You cannot set the device index number with this menu.



For details for setting the number, see page 45 (GB).

The SIGNAL SELECT Menu

The SIGNAL SELECT Menu is used for selecting the input signal.
Depending on the interface board installed in the projector, some items may not be displayed in the menu.

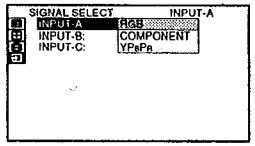


Operation

Use the ↑ or ↓ key to select the input, then press the ENTER key.

INPUT-A

Selects audio and video signals input from the INPUT A connectors. You can select the RGB, component or HDTV (YPBPR) signal.

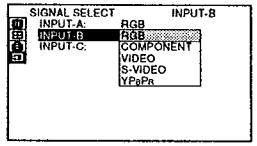


Note

When the PC-3000 signal interface switcher is connected to the INPUT A connectors, you cannot select the item.

INPUT-B

Selects the input signal from the connectors on the optional IFB-12A interface board installed in the INPUT B section. You can select the RGB, component, HDTV (YPBPR), video or S video signal.

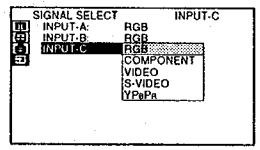


Note

This item is not displayed when the optional interface board other than the IFB-12A is installed in the INPUT B section, or when the output mode is selected on the IFB-12A.

INPUT-C

Selects the input signal from the connectors on the optional IFB-12A interface board installed in the INPUT C section. You can select the RGB, component, HDTV (YPBPR), video or S video signal.



Note

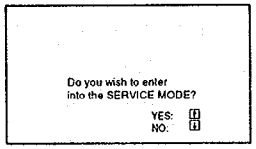
This item is not displayed when the optional interface board other than the IFB-12A is installed in the INPUT C section.

The SERVICE MODE Menus

Follow the steps below for entering into the SERVICE MODE. The SERVICE MODE is available even when only one of the four lamps for light source functions. Accordingly, you can enter into the mode even if the projector is in standby mode.
Confirm that STATUS is not displayed on the screen.

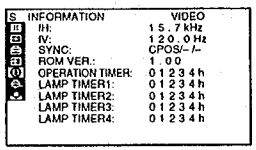
Operation when the projector is on

1 Press the keys on the control panel in the following order:
ENTER key, ENTER key, ↑ key, ↓ key, ENTER key
The following screen appears.

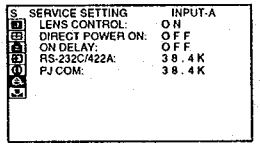


2 Press the ↑ key.
The projector enters into the SERVICE MODE.

3 Press the MENU key.
The SERVICE MODE select menu appears. When the projector enters into the SERVICE MODE, "S" appears on the upper-left corner of the screen.


S INFORMATION VIDEO
fH: 15.7kHz
fV: 120.0Hz
SYNC: CPOS/–/–
ROM VER.: 1.00
OPERATION TIMER: 0 1 2 3 4 h
LAMP TIMER1: 0 1 2 3 4 h
LAMP TIMER2: 0 1 2 3 4 h
LAMP TIMER3: 0 1 2 3 4 h
LAMP TIMER4: 0 1 2 3 4 h

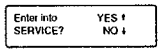
4 Press the ↑ or ↓ key to select the menu, then press the → key or the ENTER key.
The selected menu appears.



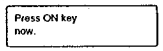
5 Make setting or adjustment on the item.
For details on setting individual items, see pages 59 (GB) to 62 (GB).

Operation when the projector is in standby mode

1 Press the keys on the control panel in the following order:
ENTER key, ENTER key, ↑ key, ↓ key, ENTER key
The following message appears in the display window of the control panel.



2 Press the ↑ key.



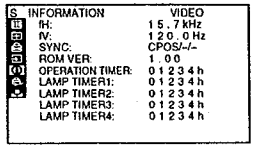
3 Press the ON key within 5 seconds.
The projector enters into the SERVICE MODE.

4 Follow the steps 3 to 5 on the left.

There are three menus in the SERVICE MODE: INFORMATION, SERVICE SETTING, and W/B ADJUST menus.

The INFORMATION Menu

The INFORMATION menu shows the information about the current input signal and the number of operated hours of the projector and lamp.


S INFORMATION VIDEO
fH: 15.7kHz
fV: 120.0Hz
SYNC: CPOS/–/–
ROM VER: 1.00
OPERATION TIMER: 0 1 2 3 4 h
LAMP TIMER1: 0 1 2 3 4 h
LAMP TIMER2: 0 1 2 3 4 h
LAMP TIMER3: 0 1 2 3 4 h
LAMP TIMER4: 0 1 2 3 4 h

fH (Horizontal frequency)

Indicates the horizontal frequency of the input signal. The value is not absolute but is only used as a reference.

fV (Vertical frequency)

Indicates the vertical frequency of the input signal. The value is not absolute but is only used as a reference.

SYNC

Indicates the type and the polarity of the sync signal. The indications show the polarity of the composite or horizontal sync signal, vertical sync signal and sync on G signal from the left to the right.
CPOS: The polarity of the composite sync signal is positive.
CNEG: The polarity of the composite sync signal is negative.
POS: The polarity of the sync signal is positive.
NEG: The polarity of the sync signal is negative.
SonG: Sync on green signal
–: No sync signal is input.

ROM VER.

Indicates the ROM version number of the projector.

OPERATION TIMER

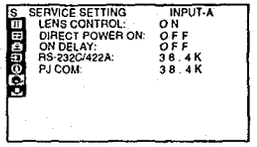
Indicates the total number of hours for which the projector has been operated.

LAMP TIMER 1–4

Indicates the total number of hours for which the lamp currently used has been operated.
The number of hours of the lamp that has burnt out is indicated in red.

The SERVICE SETTING Menu

The SERVICE SETTING menu is for the settings to be adjusted before operation.



Operation

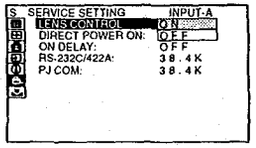
1. Select an item
Use the ↑ or ↓ key to select the item, then press the → or the ENTER key.

2. Change the setting
Press the ↑ or ↓ key to change the setting.

3. Restore the original screen
Press the ← or the ENTER key.
The original screen is restored.

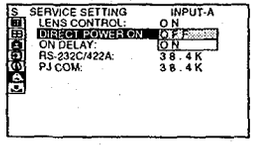
LENS CONTROL

When set to OFF, the SHIFT, FOCUS and ZOOM keys on the Remote Commander and the control panel do not function. To activate the keys, set to ON.



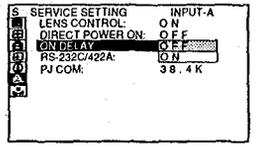
DIRECT POWER ON

Set to ON when you want to turn on the projector by simply plugging in the AC power cord.



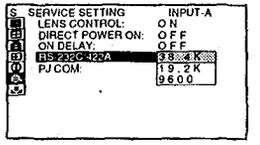
ON DELAY

When connecting multiple projectors, set to ON to turn on the projectors sequentially one by one. The delay time depends on the device index number on each projector.



RS-232C/422A

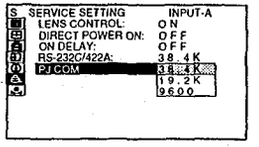
Sets the data transmission rate of the RS-232C/422A connector.



Note
Set the same data transmission rate for all the projectors and computers.

PJ COM

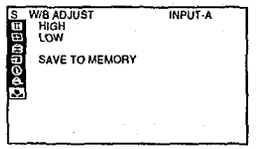
Sets the data transmission rate of the PJ COM connector.



Note
Set the data transmission rate of all equipment connected via the PJ COM connector to the same rate.

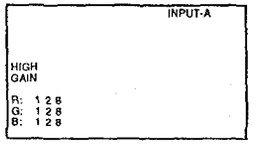
The W/B ADJUST Menu

The W/B ADJUST menu sets the values of the COLOR TEMP in the PICTURE CTRL menu.



Operation

1. Select the COLOR TEMP item to be set
Use the ↑ or ↓ key to select HIGH or LOW, then press the → or ENTER key.
The projector enters into GAIN/BIAS adjustment mode.



2. Select the item to be adjusted
Use the ↓ key to select the item.
Each time the ↓ key is pressed, the selected color item appears in the following order.

R (GAIN) → G (GAIN) → B (GAIN)
↑ ↓
B (BIAS) ← G (BIAS) ← R (BIAS)

3. Adjust an item
To increase the number, press the → key.
To decrease the number, press the ← key.

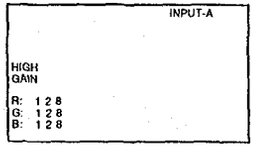
4. Restore the original screen
Press the ENTER key.
The original screen is restored.

To cancel the adjusted values

Turn off the projector. The saved data in the memory will be retrieved when the projector is turned on again.

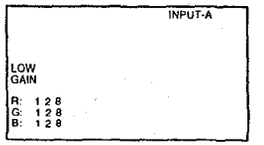
HIGH

Changes the color temperature of the COLOR TEMP's HIGH setting value in the PICTURE CONTROL menu.



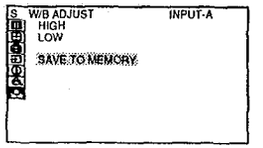
LOW

Changes the color temperature of the COLOR TEMP's LOW setting value in the PICTURE CONTROL menu.



SAVE TO MEMORY

Saves the settings of HIGH and LOW levels of COLOR TEMP if you select SAVE TO MEMORY with the ↑ or ↓ key and press the ENTER key.

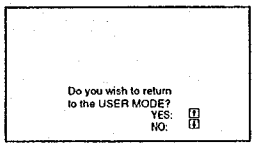


The SERVICE MODE Menus

Restoring the USER MODE

Normally, once you turn off the power using the STANDBY key on the Remote Commander after making adjustments, the USER MODE is automatically restored when you turn on the power again.
To restore the USER MODE before turning off the power, follow the steps below.

1 Press the keys on the control panel in the following order:
ENTER key, ENTER key, ↑ key, ↓ key, ENTER key
The following screen appears.



2 Press the ↑ key.
The projector goes back into the USER MODE.
You cannot display the SERVICE MODE menus.

Maintenance

Replacing the Lamp

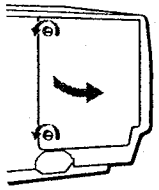
When the lamp has burnt out, the LAMP FAIL indicators at the rear of the projector light. In this case, replace the lamp with a new LMP-Q2000 projector lamp (not supplied).

Note
Immediately after turning off the power, the lamp is extremely hot. Wait at least one hour before changing the lamp to give it enough time to cool down.

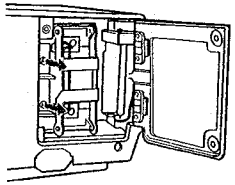
To remove the lamp unit

1 Press the STANDBY key to set the projector to standby mode, and unplug the power cord.

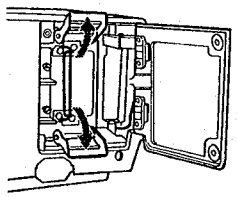
2 Remove the two screws with a coin or similar object, or a screwdriver, to open the lamp cover.



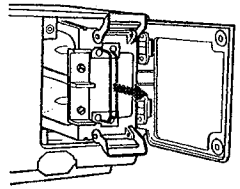
3 Loosen the two screws that fasten the lamp.



4 Fold out the levers up and down.

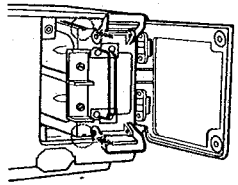


5 Pull out the lamp by holding the handles.

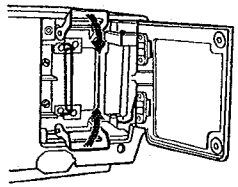


To install a new lamp

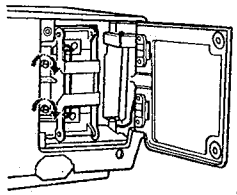
1 Mount the lamp with the grooves on the top and bottom aligned with the guides on the projector.



2 Push the lamp completely until it clicks. Fold down the levers to fix the lamp to the projector.

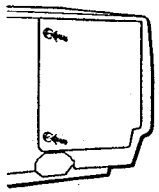


3 Tighten the two screws to secure the lamp.



(continued)

4 Replace the lamp cover and push to tighten the two screws to fix the cover.



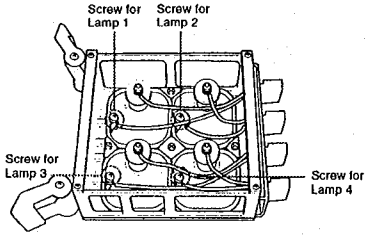
To replace a burnt lamp

If a lamp has burnt out, the FAIL LAMP indicator of that lamp lights. Check the number of the burnt lamp, and replace it with a new LMP-S2000 projector lamp (not supplied).

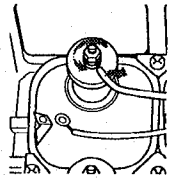
Notes

- When replacing two or more lamps, replace the lamps one after another paying attention to the connections.
- When replacing a lamp, be careful not to overtighten the screws.

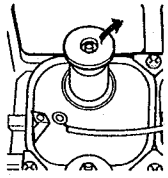
1 Remove the screw for the lamp to be replaced.
Example: To replace Lamp 1



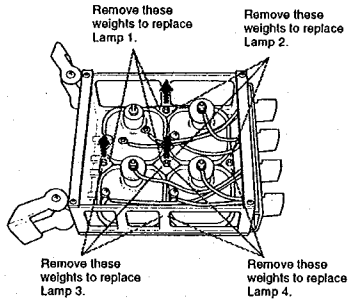
2 Remove the hexagonal nut to disconnect the cable.



3 Remove the lamp heat sink.

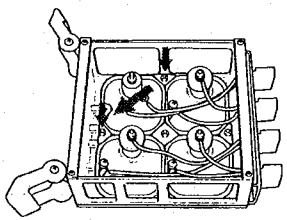


4 Remove the lamp weights.
The positions of the weights to be removed vary depending on Lamp 1–4.


Remove these weights to replace Lamp 1.
Remove these weights to replace Lamp 2.
Remove these weights to replace Lamp 3.
Remove these weights to replace Lamp 4.

5 Remove the lamp, and install a new lamp.

6 Secure the lamp by performing the steps above in reverse order.
Tighten the screw for the lamp while pressing the lamp against the lower left corner.



To reset the number of operated hours of the lamps in the message display window

1 Plug in the power cord and set the projector to standby mode.

2 Press the LIGHT, ←, → and ENTER keys on the control panel in sequence. Press each key within 5 seconds.

```
TIMER RESET?
LAMP: 1
```

3 Press the ↑ or ↓ key to display 1, 2, 3, 4 or ALL.
To reset the number of operated hours for Lamp 1, 2, 3 or 4, respectively, display 1, 2, 3 or 4.
To reset the number of operated hours for all the lamps at the same time, display ALL.

```
TIMER RESET?
LAMP: ALL
```

4 Press the ENTER key.

```
TIMER RESET??
LAMP: ALL
```

5 Press the ENTER key again.
The projector will exit the reset mode if ALL was selected in step 3.
If you selected 1, 2, 3 or 4, the display returns to that in step 3. Go to step 6.

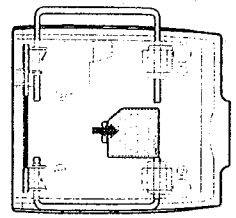
6 To exit the reset mode, display EXIT and press the ENTER key.
If you want to reset the number of operated hours of other lamps, repeat steps 3 to 6.

Cleaning the Air Filter

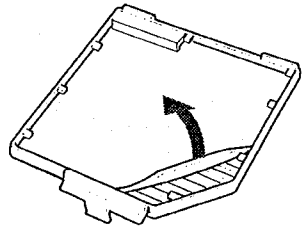
The air filter should be cleaned in every 100 hours. When it becomes difficult to remove the dust from the filter, replace the filter with a new one.

1 Turn off the power of the projector and unplug the power cord.

2 Remove the air filter cover on the bottom of the projector.



3 Remove the air filter.



4 Remove the dust from the filter with a vacuum cleaner.

5 Attach the air filter and replace the cover.

Notes

- If the air filter is excessively dirty, wash it with mild detergent solution and dry it in a shaded place.
- Be sure to attach the air filter cover firmly; the power will not be turned on if it is not closed securely.

Troubleshooting

If the projector appears to be operating erratically, try to diagnose and correct the problem, using the following guide. If the problem still persists, consult with qualified Sony personnel.

Symptom	Cause	Remedy
The power is not turned on.	The power has been turned off and on with the ON key at a short interval.	Wait for about 30 seconds before turning on the power *(see page 12 (GB))*.
	The lamp cover is detached.	Attach the lamp cover securely.
	The air filter cover is detached.	Attach the air filter cover securely *(see page 65 (GB))*.
No picture and no sound.	Cable is disconnected.	Check that the proper connections have been made *(see pages 38 (GB) – 43 (GB))*.
	Input selection is not correct.	Select the input source correctly in the SIGNAL SELECT menu *(see page 57 (GB))*.
No picture or no sound.	Either the picture or the sound is cut off.	Press the MUTING key to cancel the muting function *(see page 12 (GB))*.
The picture is noisy.	Noise may appear on the background depending on the combination of the numbers of dot input from the connector and numbers of pixel on the LCD panel.	Change the desktop pattern on the connected computer.
When inputting sound through the INPUT A/B/C connector, sound comes through one channel only.	Monaural sound is being input through the INPUT A/B/C connector.	Input stereo sound.
The picture from INPUT A/B/C connector is colored strange.	Setting for INPUT-A, INPUT-B or INPUT-C in the SIGNAL SELECT menu is incorrect.	Set INPUT-A, INPUT-B or INPUT-C in the SIGNAL SELECT menu correctly according to the input signal *(see page 57 (GB))*.
"Please check INPUT-A in SIGNAL SELECT" appears in spite of inputting the correct signal from INPUT A.	Setting for INPUT-A in the SIGNAL SELECT menu is incorrect.	Set INPUT-A in the SIGNAL SELECT menu correctly according to the input signal *(see page 57 (GB))*.
"Please check INPUT-B in SIGNAL SELECT" appears in spite of inputting the correct signal from INPUT B.	Setting for INPUT-B in the SIGNAL SELECT menu is incorrect.	Set INPUT-B in the SIGNAL SELECT menu correctly according to the input signal *(see page 57 (GB))*.
"Please check INPUT-C in SIGNAL SELECT" appears in spite of inputting the correct signal from INPUT C.	Setting for INPUT-C in the SIGNAL SELECT menu is incorrect.	Set INPUT-C in the SIGNAL SELECT menu correctly according to the input signal *(see page 57 (GB))*.
"NO INPUT" appears when 15k RGB or component signal is input.	The sync signal is incorrect.	Input the correct sync singal (composite sync or sync on G singal (sync on Y for component singal)).
On-screen displays do not appear.	STATUS in the SET SETTING menu is set to OFF.	Set STATUS in the SET SETTING menu to ON *(see page 55 (GB))*.
Color balance is not correct.	Picture has not been adjusted properly.	Adjust the picture *(see pages 50 and 51 (GB))*.
	The color system of the input signal is not set correctly.	Set COLOR SYS in the PICTURE CTRL menu correctly to match the color system of the input signal *(see page 51 (GB))*.
The picture is too dark.	The lamp is nearing the end of its life.	Replace the lamp with a new one *(see page 64 (GB))*.
	Contrast or brightness has not been adjusted properly.	Adjust CONTRAST or BRIGHT in the PICTURE CTRL menu properly *(see page 50 (GB))*.
The picture is not clear.	The picture is out of focus.	Adjust the focus *(see page 48 (GB))*.
	Moisture condensation has occurred on the lens.	Leave the projector for about two hours with the power on *(see page 20 (GB))*.

Symptom	Cause	Remedy
The Remote Commander does not work.	The batteries are exhausted.	Replace the batteries with new ones *(see page 19 (GB))*.
	The remote control cable is connected to the Remote Commander although you are using it as a wireless Remote Commander.	Disconnect the remote control cable.
	The fluorescent lamp influences on the Remote Commander detector.	Change the setting of SIRCS RECEIVER in the SET SETTING menu *(see page 56 (GB))*.
	You have selected a wrong index number.	Select the correct index number *(see pages 45 (GB) and 56 (GB))*.
	You have set the index number to "00".	Select the correct index number *(see page 45 (GB))*.
The wireless Remote Commander does not function.	The SIRCS RECEIVER setting is not correct.	Change the setting of SIRCS RECEIVER in the SET SETTING menu *(see page 56 (GB))*.
INPUT A cannot be selected.	The switcher is not connected, but is recognized to be connected.	If the PJ COM connector is connected to something other than the terminator, remove it then press the SYS SET key.
The COVER FAIL indicator lights.	The lamp cover or air filter cover is detached.	Attach the lamp cover or air filter cover securely *(see pages 63 (GB) and 65 (GB))*.
The LAMP FAIL indicator lights.	The lamp with the same number of the indicator has reached the end of its life.	Replace the lamp *(see page 64 (GB))*.
The FAN indicator lights.	The fan is broken.	Consult with qualified Sony personnel.
The HIGH TEMP indicator lights.	The internal temperature is unusually high.	Check to see if nothing is blocking the ventilation holes.
When you press the ZOOM, SHIFT or FOCUS key, "LENS CONTROL is locked! Do you wish to unlock ?" appears.	The lens control function is locked.	Consult with qualified Sony service personnel.

Caution messages

Use the list below to check the meaning of the messages displayed on the screen.

Message	Meaning	Remedy
High Temperature! Power off in 1 min.	Internal temperature becomes too high.	Turn off the power. (If not, the power is automatically turned off about one minute later.) Check to see if nothing is blocking the ventilation holes.
Frequency is out of range!	The frequency of the input signal is out of the acceptable range.	Input a signal that is within the range of the frequency.
Please check INPUT-A in SIGNAL SELECT.	You have input the RGB signal from the computer when INPUT-A in the SIGNAL SELECT menu is set to COMPONENT or YP_BP_R.	Set INPUT-A correctly.
Please check INPUT-B in SIGNAL SELECT.	You have input the RGB signal from the computer when INPUT-B in the SIGNAL SELECT menu is set to COMPONENT or YP_BP_R.	Set INPUT-B correctly.
Please check INPUT-C in SIGNAL SELECT.	You have input the RGB signal from the computer when INPUT-C in the SIGNAL SELECT menu is set to COMPONENT or YP_BP_R.	Set INPUT-C correctly.

Specifications

Optical characteristics

Projection system	3 LCD panels, 1 lens, 3-primary color optical shutter system
LCD panel	1.8-inch XGA LCD panel, 2,359,296 pixels (786,432 pixels × 3)
Lens	Option
Light output	ANSI lumen[1] 2,400 lm
Lamp	120 W UHP × 4

Electrical characteristics

Color system	NTSC3.58/PAL/SECAM/NTSC4.43/PAL-M system, switched automatically
Resolution	600 horizontal TV lines (video input) 1024 × 768 dots (RGB input)
Acceptable computer signal	
	fH: 15 to 94 kHz fV: 40 to 120 Hz
Speakers	Max. 5 W + 5 W, 90 × 50 mm (3 5/8 × 2 inches), stereo

Input/Output

CONTROL S
IN/PLUG IN POWER: Stereo minijack, 5 Vp-p, plug in power, DC 5 V, maximum output 60 mA
OUT: Stereo minijack, 5 Vp-p

REMOTE RS-232C/422A
D-sub 9-pin (female)
(For details, see "Pin assignment" on page 70 (GB).)

PJ COM
IN: D-sub 9-pin (male)
OUT: D-sub 9-pin (female)
(For details, see "Pin assignment" on page 70 (GB).)

TRIG
Minijack
Power on: DC 12 V, output impedance: 4.7 kilohms
Power off: 0 V

S VIDEO (priority to Y IN/C IN) (only for VPL-X2000U/X2000M)
IN: Mini DIN 4-pin type (male)
Y (luminance): 1 Vp-p ± 2 dB sync negative, 75 ohms terminated
C (chrominance): Burst 0.286 Vp-p ± 2 dB (NTSC), 75 ohms terminated
Burst 0.3 Vp-p ± 2 dB (PAL), 75 ohms terminated
OUT: Loop-through mini DIN 4-pin type (male)
Loop-through output from the S VIDEO IN connector
Y IN: BNC type
1 Vp-p ± 2 dB sync negative, 75 ohms terminated
C IN: BNC type
Burst 0.286 Vp-p ± 2 dB (NTSC), 75 ohms terminated
Burst 0.3 Vp-p ± 2 dB (PAL), 75 ohms terminated

VIDEO (only for VPL-X2000U/X2000M)
IN: BNC type
Composite video, 1 Vp-p ± 2 dB sync negative, 75 ohms terminated
OUT: Loop-through BNC type
Loop-through output from the VIDEO IN connector

AUDIO IN (only for VPL-X2000U/X2000M)
Phono type (stereo)
500 mVrms, impedance more than 47 kilohms

INPUT A
Analog RGB/component: BNC type
R/R-Y: 0.7 Vp-p ± 2 dB positive, 75 ohms terminated
G: 0.7 Vp-p ± 2 dB positive, 75 ohms terminated
G with sync/Y: 1 Vp-p ± 2 dB sync negative, 75 ohms terminated
B/B-Y: 0.7 Vp-p ± 2 dB positive, 75 ohms terminated
SYNC/HD: Composite sync: 0.6–8 Vp-p, high impedance, sync positive/negative
Horizontal sync: 0.6–8 Vp-p, high impedance, sync positive/negative
VD: Vertical sync: 0.6–8 Vp-p, high impedance, sync positive/negative
AUDIO IN: Phono type (stereo)
500 m Vrms, impedance more than 47 kilohms
HDTV (Y/PB/PR): BNC type
Y: 1 Vp-p ± 2dB positive, 75 ohms
Tri-level sync: ± 0.3 Vp-p
Bi-level sync: 0.3 Vp-p
PB/PR: 0.35 Vp-p ± 2dB positive, 75 ohms
HDTV (GBR): BNC type
G with sync: 1 Vp-p ± 2 dB, 75 ohms
Tri-level sync: ± 0.3 Vp-p
Bi-level sync: 0.3 Vp-p
B/R: 0.7 Vp-p ± 2dB positive, 75 ohms

AUDIO OUT (variable out)
Phono type, Max. 1 Vrms
When input is 500 mVrms: impedance less than 5 kilohms

Safety regulations
VPL-X2000U: UL1950, c-UL (CSA No. 950), FCC Class A, IC Class A
VPL-X2000E/X2000M: EN60 950 (TÜV), CE, C-Tick

General

Dimensions	562 × 237 × 649 mm (22 1/4 × 9 3/8 × 25 5/8 inches) (w/h/d)
Mass	Approx. 34.5 kg (76 lb 1 oz) (excluding the optional lens)
Power requirements	
	VPL-X2000U: AC 100 to 120 V/ 220 to 240 V, 50/60 Hz[1] VPL-X2000E/X2000M: AC 220 to 240 V, 50/60 Hz
Power consumption	
	Approx. 770 W (Standby mode: 15W for VPL-X2000U/X2000M, 20 W for VPL-X2000E)
Heat dissipation	2628 BTU
Operating temperature	
	0°C to 40°C (32°F to 104°F)
Operating humidity	
	35% to 85% (no condensation)
Storage temperature	
	–20°C to +60°C (–4°F to +140°F)
Storage humidity	10% to 90%
Supplied Accessories	
	Remote Commander RM-PJ1001 (1) Size AA (R6) batteries (3) Remote commander cable (stereo) (15 m) (1) AC power cord (1) Terminator for the PJ COM connector (1) Lens ring (1) Operating Instructions (1) Installation Manual for Dealers (1) Warranty (only for VPL-X2000U) (1)

Design and specifications are subject to change without notice.

Optional accessories

Projector Lamp LMP-Q2000 (for replacement)
Projector Lamp LMP-S2000 (for replacement)
Interface Board
- IFB-12A (Analog RGB/component/HDTV/ composite video/S video input with 5BNC type connectors)
- IFB-20 (Analog RGB input with D-sub 9-pin type connector)
- IFB-21 (Analog RGB input/output with HD D-sub 15-pin type connector)
- IFB-30 (Digital RGB input with D-sub 9-pin type connector)
- IFB-50 (serial digital video input/output with BNC type connector)
- IFB-1000 (Composite video input with BNC type connector/S video input with mini DIN 4-pin type connector)
- IFB-X2000E (Composite video input with phono jacks/S video input with mini DIN 4-pin type connector) (only for VPL-X2000E)

Signal Interface Switcher PC-3000
Interface Unit IFU-1271/1271M
SIC Cable
- SIC-10/20A/20C/21/22/23/24/24A/25/26/26A/30/31/M1/M5/M15/M25/M50

9-pin remote cable (for PJ COM)
- RCC-5G/10G/30G

(continued)

1) ANSI lumen is a measuring method of American National Standard IT 7.228.

1) UL listed for 120 V operation.

Specifications

Monitor Cable
- SMF-400 (HD D-sub 15-pin (female) ⟷ 5BNC (female))
- SMF-401 (HD D-sub 15-pin (female) ⟷ HD D-sub 15-pin (female))

Signal Adapter
- ADP-10 (D-sub 9-pin ⟷ HD D-sub 15-pin (for SIC Cable))
- ADP-20 (Macintosh ⟷ VGA)

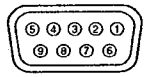
Remote Commander RM-PJ3000S
Remote Control Receiver RM-PJ10
Projection Lens
- Fixed short focus lens VPLL-2009
- Fixed short focus lens VPLL-2014
- 1.3-times zoom standard focus lens VPLL-Z2019
- 1.6-times zoom long focus lens VPLL-Z2025
- 1.5-times zoom long focus lens VPLL-Z2039
- Fixed long focus lens VPLL-2075

Projector Stand SU-PJ2000 (for stacking)
Projector Suspension Support PSS-2000
Screens
- VPS-80FH (80-inch, flat)
- VPS-100FH (100-inch, flat)
- VPS-120FH (120-inch, flat)

Some of the items may not be available in some areas. For details, please consult your nearest Sony office.

Pin assignment

RS-232C/422A connector (D-sub 9-pin, female)



RS-232C

1	NC		6	DSR*	Data Set Ready
2	RD	Receive Data	7	RTS**	Request to Send
3	TD	Transmit Data	8	CTS**	Clear to Send
4	DTR*	Data Terminal Ready	9	NC	
5	GND	Ground			

* Circuit between pins 4 and 6 is short-circuited in the projector.
** Circuit between pins 7 and 8 is short-circuited in the projector.

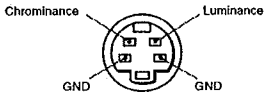
RS-422A

1	GND	Ground	6	GND	Ground
2	$\overline{TX}$	Transmit	7	TX	Transmit
3	RX	Receive	8	$\overline{RX}$	Receive
4	GND	Ground	9	GND	Ground
5	NC				

PJ COM connector (D-sub 9-pin, female)

1	GND	Ground	6	GND	Ground
2	$\overline{BUSY}$	Busy	7	$\overline{BUSY}$	Busy
3	TX/RX	Tramsmit/ Receive	8	$\overline{TX/RX}$	Tramsmit/ Receive
4	GND	Ground	9	GND	Ground
5	NC				

S VIDEO connector (mini DIN 4-pin)



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SONY

3-865-115-11 (1)

Interface Board

Operating Instructions

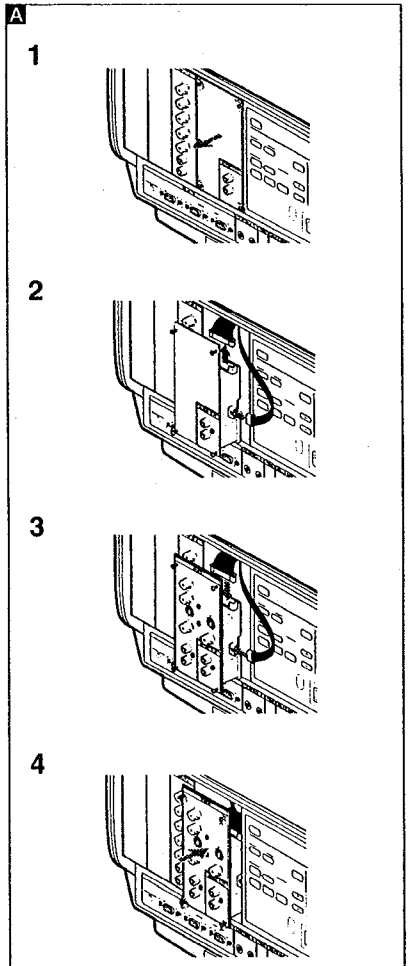
IFB-X2000E

Sony Corporation © 1998 Printed in Japan

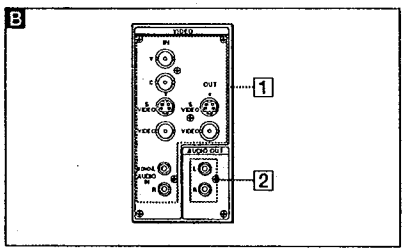
Sony online http://www.world.sony.com/

Printed on recycled paper

A



B



English

The IFB-X2000E interface board is designed to be mounted on Sony VPL-X2000E LCD data projectors so that composite video or S video (Y/C) signals and audio signals from video equipment can be input/output.

Mounting the IFB-X2000E A

Before installing the board, be sure to turn off the power of the projector and disconnect the projector power cable from the wall outlet.

1 **Pull out the AUDIO OUT plate on the rear of the projector by loosening the four screws with a screwdriver.**
2 **Disconnect the 12-pin and 4-pin cable connectors from the AUDIO OUT plate to remove the plate.**
3 **Insert the two connectors into the connector plugs on the interface board.**
4 **Insert the interface board into the rear panel of the projector.**

Caution

Make sure that the wire is not caught between the opening of the projector and the board.

5 **Tighten the four screws on the interface board.**

Location and Function of Parts B

[1] **VIDEO connectors**

Y IN/C IN (BNC-type): Connect to the Y and C video outputs of the video equipment.
S VIDEO IN (mini DIN 4-pin): Connects to the Y/C video output of the video equipment.
S VIDEO OUT (mini DIN 4-pin): Used as loop-through output via the Y/C IN connectors or the S VIDEO IN connector.
VIDEO IN (BNC type): Connects to the composite video output connector of the video equipment.
VIDEO OUT (BNC type): Used as loop-through output of the VIDEO IN connector.
AUDIO IN L (MONO)/R jacks (phono type): Connect to the audio output jacks of equipment, such as a VCR, etc. For stereo equipment, use both the L and R jacks; for monaural equipment, use the L (MONO) jack only.

Note

If you have video equipment connected to both the Y/C IN and S VIDEO IN connectors, the signal from the Y/C IN connectors are selected prior to the S VIDEO IN connector. When projecting video connected to the S VIDEO IN connector, be sure not to connect any cable to the Y/C IN connectors.

[2] **AUDIO OUT L/R jacks (phono type)**

Connect to external active speakers. The volume of the speakers can be controlled by the VOLUME keys of the projector.

Specifications

S VIDEO (priority to Y IN/C IN)
IN: Mini DIN 4-pin type (male)
Y (luminance): 1 Vp-p ± 2 dB sync negative, 75 ohms terminated
C (chrominance): Burst 0.286 Vp-p ± 2 dB (NTSC), 75 ohms terminated
Burst 0.3 Vp-p ± 2 dB (PAL), 75 ohms terminated
OUT: Loop-through mini DIN 4-pin type (male), Loop-through output from the S VIDEO IN connector
Y IN: BNC type, 1 Vp-p ± 2 dB sync negative, 75 ohms terminated
C IN: BNC type, Burst 0.286 Vp-p ± 2 dB (NTSC), 75 ohms terminated, Burst 0.3 Vp-p ± 2 dB (PAL), 75 ohms terminated
VIDEO
IN: BNC type, Composite video, 1 Vp-p ± 2 dB sync negative, 75 ohms terminated
OUT: Loop-through BNC type, Loop-through output from the VIDEO IN connector
AUDIO IN
Phono type (stereo), 500 mVrms, impedance more than 47 kilohms
AUDIO OUT (variable out)
Phono type, Max. 1 Vrms, When input is 500 mVrms: impedance less than 5 kilohms

Design and specifications are subject to change without notice.

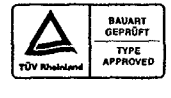
SONY

3-865-453-01(1)

Projector Suspension Support

Installation manual for Dealers

Operating Instructions
Before operating the unit, please read this manual thoroughly and retain it for future reference.



PSS-2000

© 1998 by Sony Corporation

English

Maximum load: 50 kg (110 lb 6 oz)

The PSS-2000 suspension support is designed for use with Sony LCD Data projectors the VPL-X2000U/E/M.

Caution

- For installation, consult with qualifies Sony personnel.
- The ceiling should be capable of supporting a weight of at least 250 kg (551 lb 2 oz); if not, the ceiling must be reinforced.
- When you attach the bracket directly to the ceiling, use commercially available M10 bolts with nuts and washers, depending on the ceiling. Use of other bolts, nuts, and washers other than M10 may present a danger of falling.
- Be sure to assemble and attach the bracket in the order indicated; otherwise the projector may fall, resulting in grievous bodily injury or even death.
- The PSS-2000 suspension support is designed for use with Sony LCD data projector. Never use it for another purpose.

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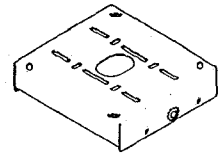
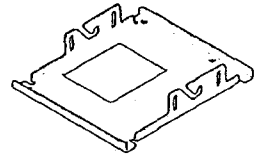
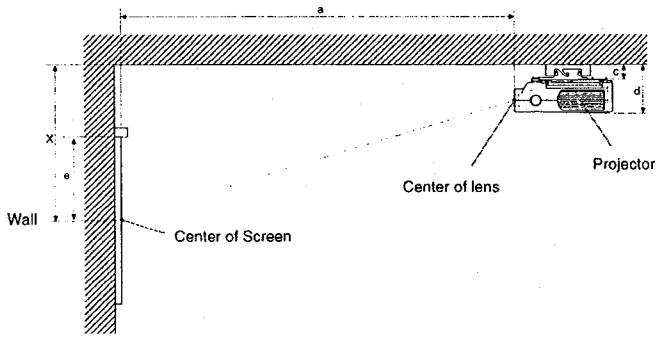
Parts List

(a)	Base box (1)	
(b)	Suspension bracket (1)	
(c)	Bolt M8 × 20 (2) Parts number 4-047-766-01	
(d)	Bolt M6 × 12 (4) Parts number 4-056-754-01	
(e)	Washer M8 (2) Parts number 4-047-748-01	
(f)	Washer M6 (4) Parts number 4-056-755-01	

(g)	Spacer (2) Parts number 4-056-753-01	
(h)	Bolt M10 × 25 (4) Parts number 4-068-372-01	
(i)	Washer M10 (4) Parts number 4-068-371-01	
(j)	Spring washer M10 (4) Parts number 4-068-373-01	

Installation Diagram

For details of screen size and installation measurement for projection, refer to the Operating Manual or Installation Manual for Dealers of the projector.



a: Distance between the center of lens and the screen

c: Distance between the ceiling and the mounting surface of the suspension bracket: 104.7 mm (4 1/8 inches)

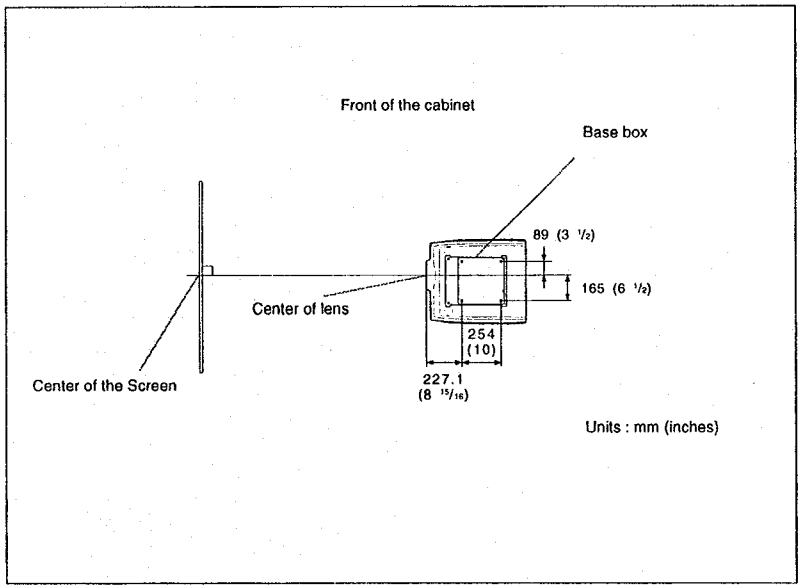
d: Distance between the top of the projector and the ceiling: 330.3 mm (13 inches)

e: Distance from the top edge of available projected picture to the center of screen

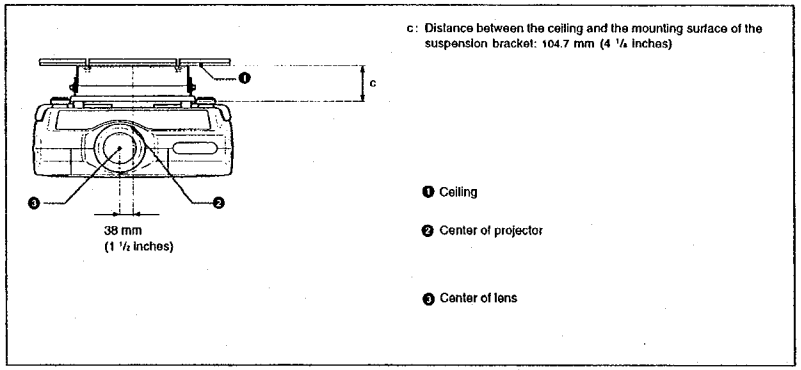
x: Distance between the ceilig and the center of the screen

Installation Diagram

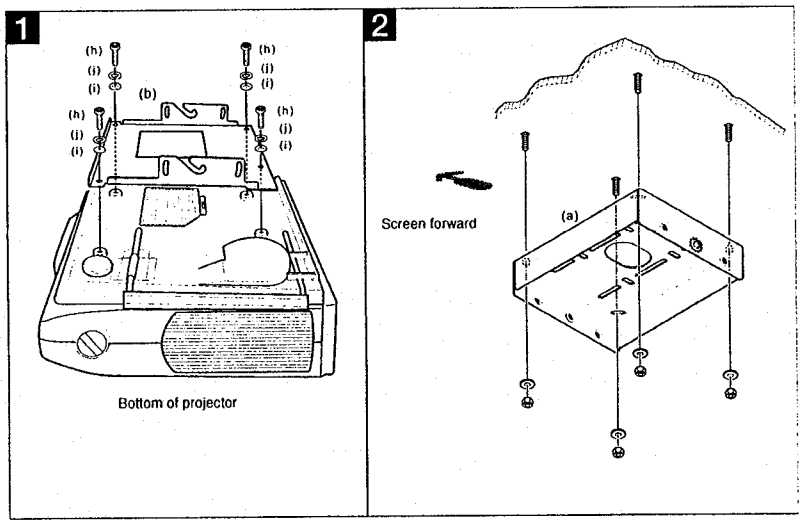
Align the center of the lens with the center of the screen.



The lens is offset 38 mm (1 1/2 inches) to the left from the center of the projector. When mounting, take care to align the center of the lens with the center of the screen; not the center of the projector.


c: Distance between the ceiling and the mounting surface of the suspension bracket: 104.7 mm (4 1/4 inches)
c
38 mm
(1 1/2 inches)
❶ Ceiling
❷ Center of projector
❸ Center of lens

Attaching to the Ceiling



English

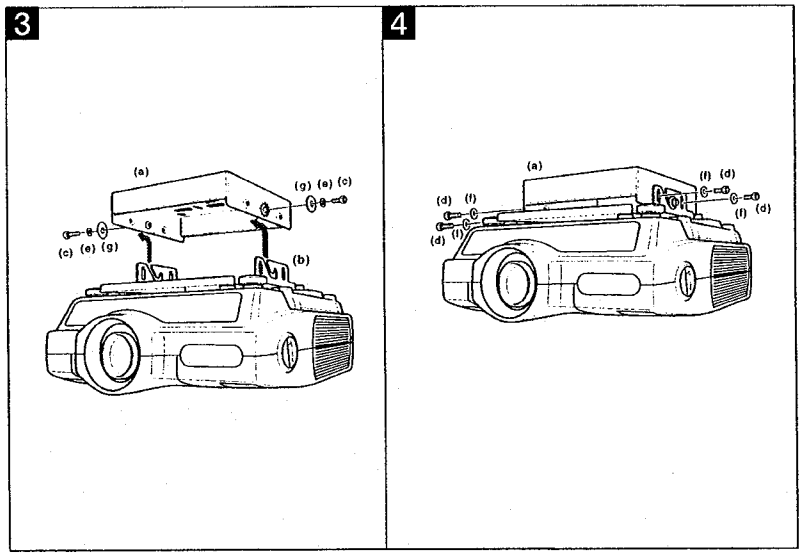
1 Turn the projector upside down and attach the suspension bracket (b).
Use M10 × 25 bolts (h), M10 spring washers (j) and M10 washers (i).

Note

When attaching the bracket, be careful not to overtighten the bolts.

2 Attach the base box (a) to the ceiling.
Use M10 bolts, nuts and washers (not supplied).

Attaching to the ceiling



English

3 Tighten loosely two bolts M8 × 20 (c), washers (e) and spacers (g) to the base box hinge pins (a). Hang the projector with the suspension bracket (b) on the base box hinge pins (two bolts M8 × 20 (c)).

4 Attach four bolts M6 × 12 (d) and washers M6 (f), tighten all bolts M6 × 12 (d) (angle holding) and two bolts M8 × 20 (c) (attached in step 3) to secure the projector to the screen angle.

5 After having secured the projector, adjust the position of the screen and projected image using SHIFT function of the projector.

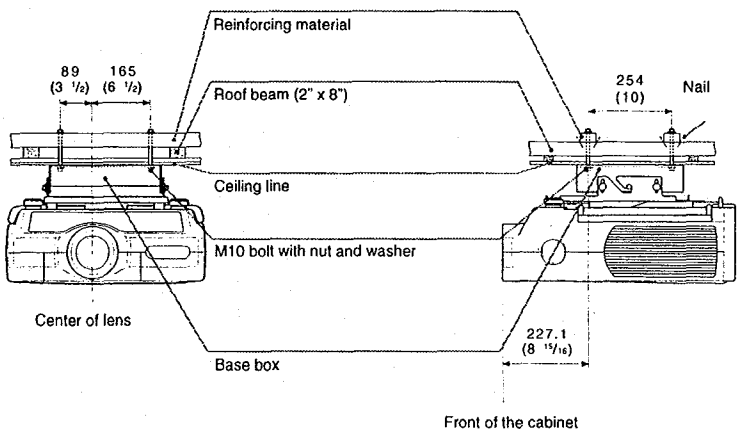
Installation Examples

The following illustrations show the projector suspension support attached to with the ceiling. Installation is different depending on the material of ceiling.

Caution

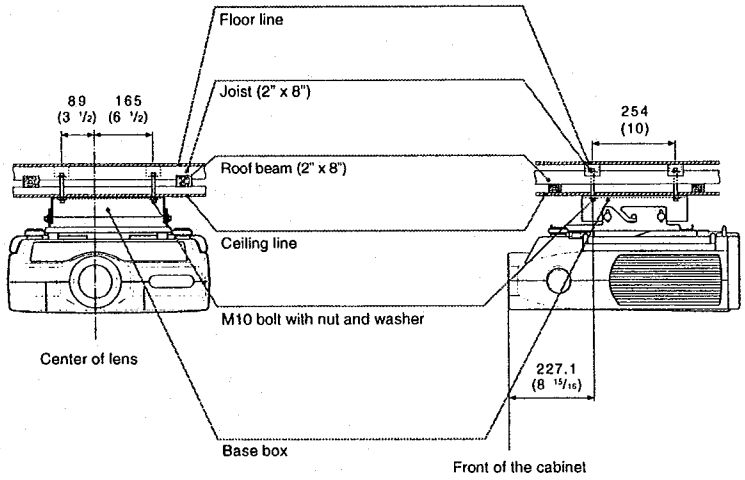
Before installation, check that the maximum ceiling loading is in excess of 250 kg (551 lb 2 oz).

For-one-story house or uppermost floor



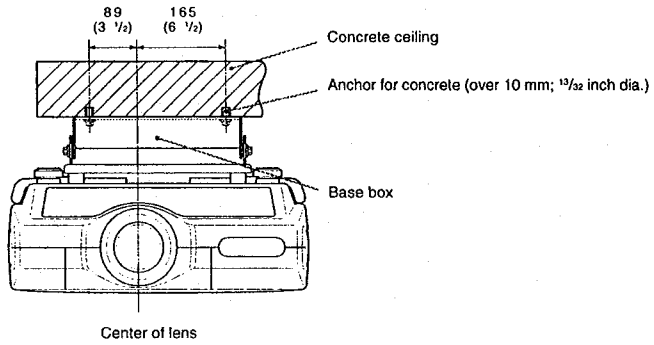
Units : mm (inches)

Installation Examples

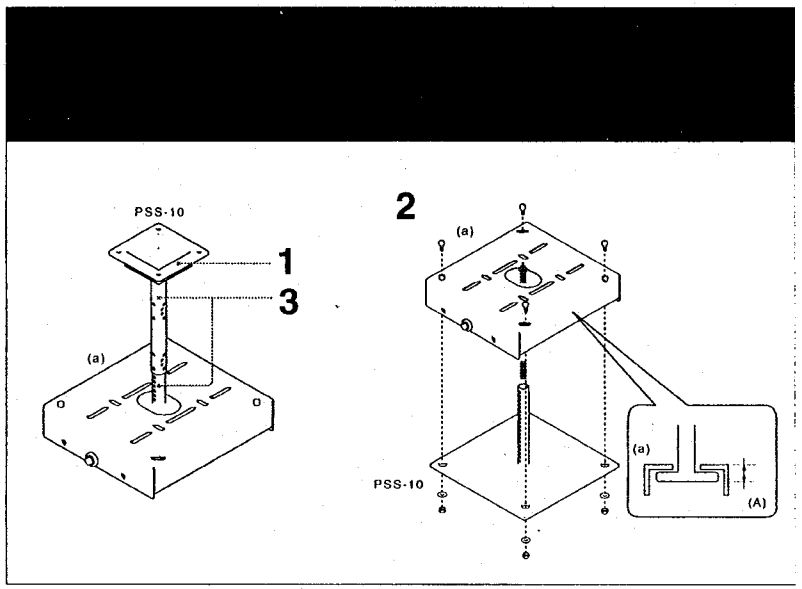


Units : mm (inches)

Place bolts at least 100 mm (4 inches) away from wall.



Installation Examples



English

1 Attach the upper part of the PSS-10 to the ceiling. (See the PSS-10 installation manual for details.)

2 Insert the lower part of the PSS-10 into the hole in the base box and secure them using the M10 bolts, M10 washers, and M10 nuts supplied with the PSS-10.

3 Adjust the length and secure the upper and lower parts of the PSS-10. (See the PSS-10 installation manual for details.)

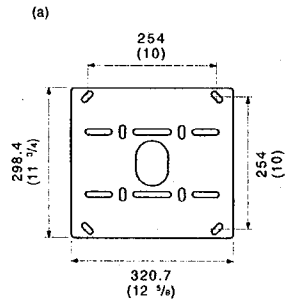
Note

The distance between the projector and the ceiling will be decreased by 5.5 mm (7/32 inch) (A) from the installation measurements of the PSS-10 when the PSS-2000 and the PSS-10 are used together.

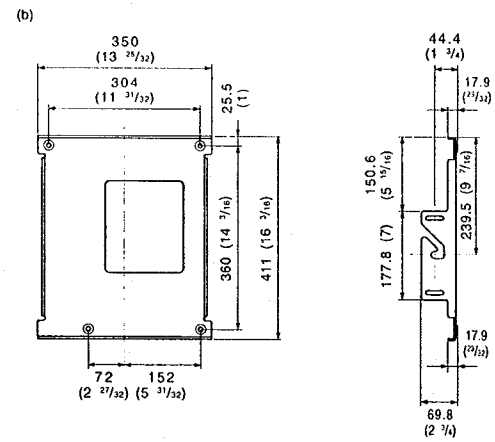
Specifications

Dimensions

Base box



Suspension bracket



Units : mm (inches)

1-78

[redacted]

Mass : Approx. 5.5 kg (12 lb 2 oz)
Loading: Maximum 50 kg (110 lb 4 oz)

Design and specifications are subject to change without notice.

SONY

3-865-454-01(1)

Projector Stand

Installation manual

SU-PJ2000

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Overview

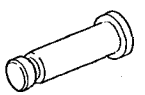
English

Maximum load of one projector stand: Up to 50 kg (110 lb 4 oz) per projector

The SU-PJ2000 projector stand is designed for use with Sony LCD data projector VPL-X2000U/E/M. You can stack up to three stands.

Caution
You can attach only one projector to one projector stand.

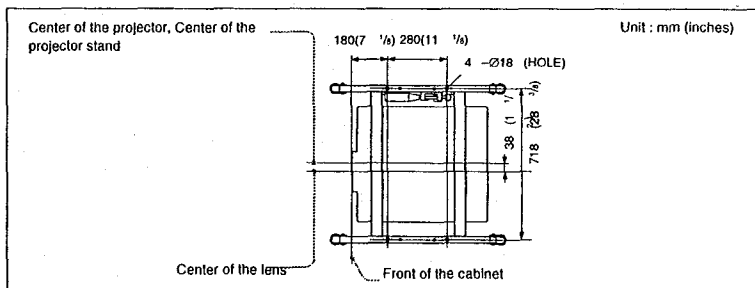
Parts List

		Parts number	
(a)	Screw M6 × 14 (8)	4-068-381-01	
(b)	Screw M10 × 20 (4)	4-068-379-01	
(c)	Shaft stack (4)	4-068-383-01	
(d)	Bracket stack (4)	4-068-382-01	
(e)	Flat washer M10 (4)	4-068-378-01	
(f)	Spring washer M10 (4)	4-068-380-01	

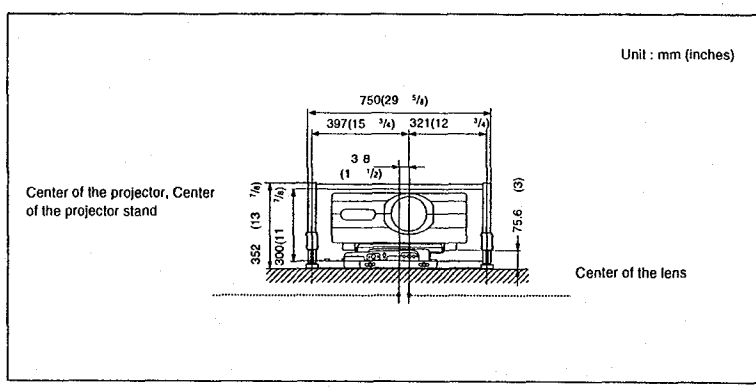
Installation Diagram

For details of screen size and installation measurement for projection, refer to the Installation Manual of the projector.

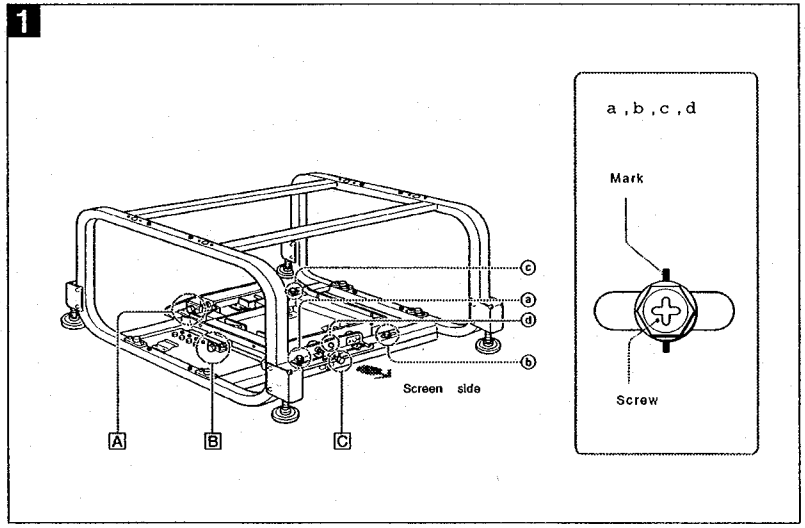
Top view



Front view



Installation



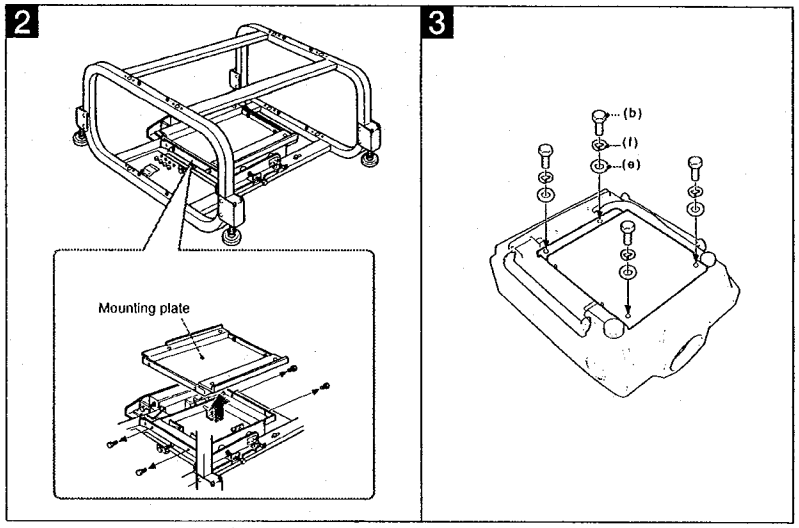
English

Attaching the projector to the projector stand

1 Loosen the screws a , b , c , d , and be sure that the each screw is positioned to the mark line.
To move the screws to the correct position, turn the knobs A , B , C .

To move screw a : turn the knob A .
To move screws b , c : turn the knob B .
To move screw d : turn the knob C .

(Continued)



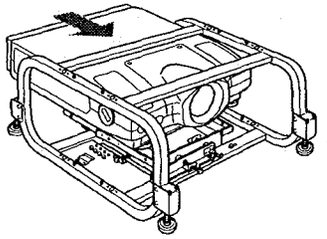
English

2 Remove the mounting plate from the projector stand.
Remove the screws (4) with the Phillips head screwdriver.

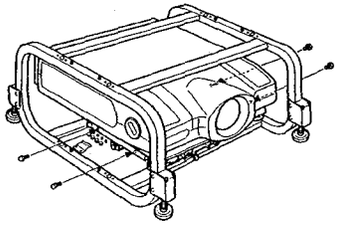
3 Turn over the projector, then turn over the mounting plate and attach it to the projector aligning the projections of the mounting plate with the holes of the projector.
Fix the plate with the supplied screw M10 × 20 (b) (4), flat washer M10 (e) (4) and spring washer M10 (f) (4) by using the wrench attached to the stand.

(Continued)

4



5

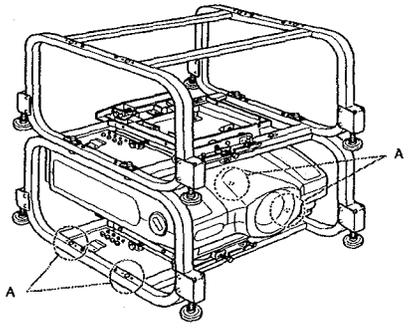


English

4 Re-position the projector with the mounting plate attached so that it faces in the original direction. Then, slide the projector into the tray of the projector stand from the rear, using the guides.

5 Slide the projector in until the mounting plate stops (foremost position).
Use the screws (4) removed in step **2**.

2



English

Stacking the projector stand

You can stack up to three SU-PJ2000 projector stands.

1 Put the 1st projector stand with the projector at the place they are to be used.
Place the stand on a flat surface facing the screen.

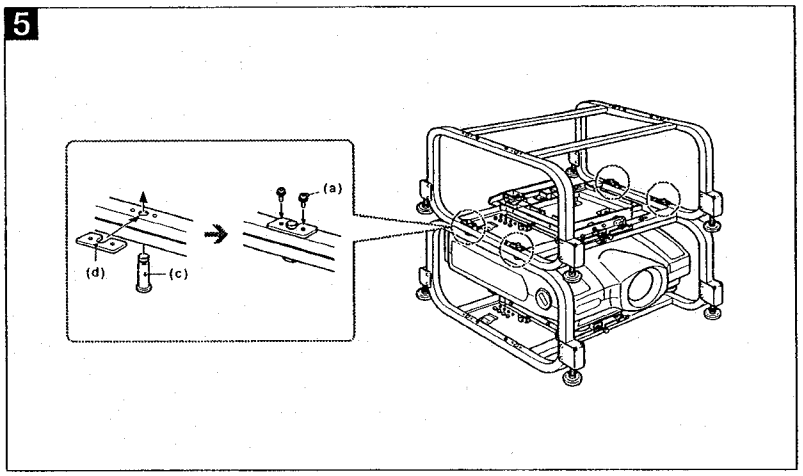
2 Display the HATCH pattern of the projector, adjust the horizontal and vertical positioning and fix the A (4) with the commercially available bolts (M14) and washers (M14).

3 Follow to the steps **1** to **3** of "Attaching the projector to the projector stand" (page 10) for 2nd and 3rd projectors.

4 Stack the 2nd projector stand on the 1st stand.

(Continued)

5



English

5 Fix the 1st and 2nd stands.
Insert the shaft stack (c) from the under side and fix the projector stand with the bracket stack (d). Fix the bracket stack with the supplied screws M6 × 14 (a) (8).

6 **Triple stack:** Stack the 3rd projector stand on the 2nd stand and fix them as step **5**.

7 Attach the projectors to the 2nd and 3rd projector stands.

Aligning projectors

English

Notes

- When adjusting with the Remote Commander, set a different index number on each projector, and designate the projector to be operated with the Remote Commander.
- For details on the following operations of the projector, see the Installation Manual for Dealers of the VPL-X2000U/E/M.
  -Setting the index number.
  -Entering into the service mode.
  -Adjusting the picture.
  -Adjusting the focus.
- Complete the adjustment on the 1st projector as the pictures of the 2nd and 3rd projectors are aligned with the picture of the 1st projector.

1 Press the ON key of the Remote Commander or the control panel for all projectors.
The ON indicator lights in green.

2 Enter into the SERVICE MODE for all projectors.

3 Put the lens cap on the 2nd and 3rd projectors or mute the picture by pressing the MUTING key.

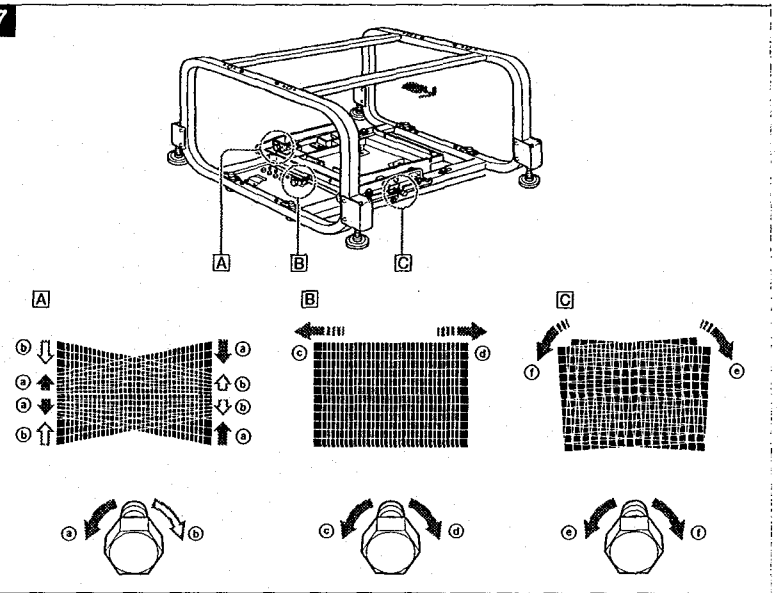
4 Press the PATTERN key for the 1st projector on the Remote Commander or the control panel to display the HATCH pattern.

5 Adjust the focus with the FOCUS + or – key on the Remote Commander or the control panel.

6 Adjust the screen size using the ZOOM + or – key on the Remote Commander or the control panel, and adjust the vertical positioning using the SHIFT + or – key.

(Continued to page 24)

7



English

7 Adjust the picture precisely as follows.

A Adjusting the vertical picture size
- ⓐ The left side of the picture is enlarged and right side is shortened, when the knob A is turned counterclockwise.
- ⓑ The right side of the picture is enlarged and left side is shortened, when the knob A is turned clockwise.

B Adjusting the horizontal picture size (adjustment range is ±15 mm)
- ⓒ The picture moves leftward, when the knob B is turned counterclockwise.
- ⓓ The picture moves rightward, when the knob B is turned clockwise.

C Adjusting the incline of the picture (adjustment range is ±2.5°)
- ⓔ The picture turns rightward, when the knob C is turned counterclockwise.
- ⓕ The picture turns leftward, when the knob C is turned clockwise.

(Continued to page 26)

English

8 After completing the adjustment of the 1st projector, tighten the screws (4) of the 1st projector stand.

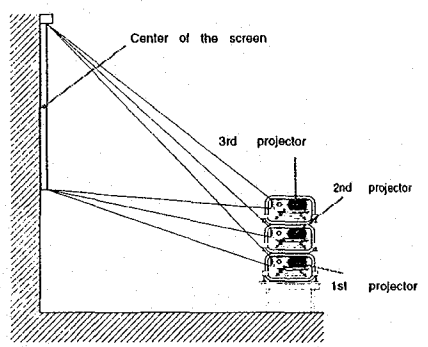
Notes

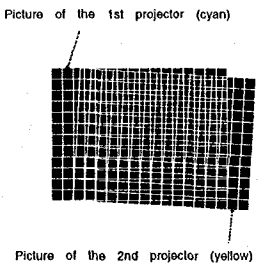
- If the HATCH pattern is not displayed properly on the screen, or is out of focus after the adjustments above, repeat steps **5** and **6** to adjust finely.
- Be sure not to readjust the 1st projector after completing the adjustments to it. When aligning all pictures, adjust the 2nd or 3rd projector to align its picture with that of the 1st projector.

(Continued to page 28)

9

Wall





English

9 Remove the lens cap on the 2nd projector or release the muting by pressing the MUTING key.

10 Press the PATTERN key for the 1st projector on the Remote Commander or the control panel to display the HATCH pattern in cyan.

11 Press the PATTERN key for the 2nd projector on the Remote Commander or the control panel to display the HATCH pattern in yellow.

(Continued to page 30)

English

Align the picture of the 2nd projector with that of the 1st projector for the following adjustments. When both pictures are aligned correctly, the HATCH pattern is displayed in white.

12 Adjust the focus for the 2nd projector.

13 Adjust the picture size and the vertical positioning.

Picture size
Adjust it using the ZOOM + or – key on the Remote Commander or the control panel.

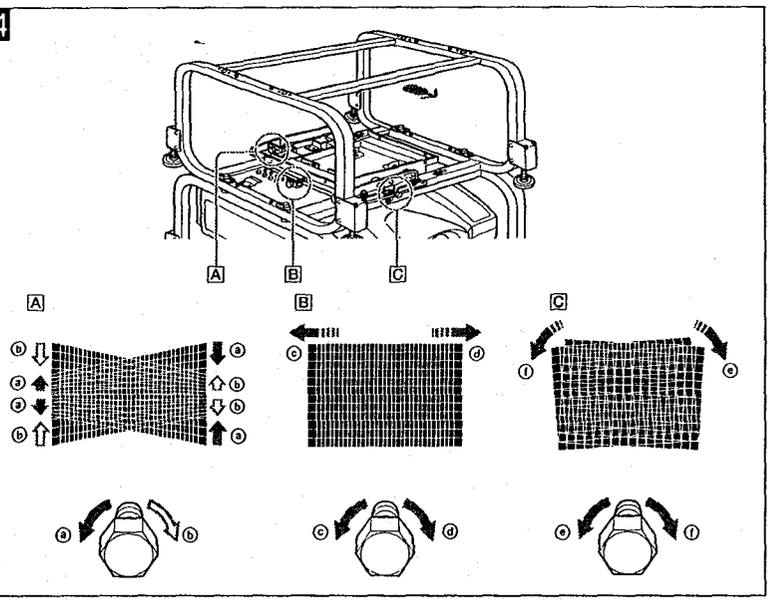
Vertical positioning
Adjust it using the SHIFT + or – key on the Remote Commander or the control panel.

Notes

- Be sure not to readjust the focus after aligning both pictures.
- Be sure not to readjust the 1st projector while adjusting the 2nd projector.

(Continued to page 34)

14



English

14 Adjust the picture precisely as follows.

A Adjusting the vertical picture size
- ⓐ The left side of the picture is enlarged and right side is shortened, when the knob A is turned counterclockwise.
- ⓑ The right side of the picture is enlarged and left side is shortened, when the knob A is turned clockwise.

B Adjusting the horizontal picture size (adjustment range is ±15 mm)
- ⓒ The picture moves leftward, when the knob B is turned counterclockwise.
- ⓓ The picture moves rightward, when the knob B is turned clockwise.

C Adjusting the incline of the picture (adjustment range is ±2.5°)
- ⓔ The picture turns rightward, when the knob C is turned counterclockwise.
- ⓕ The picture turns leftward, when the knob C is turned clockwise.

(Continued to page 36)

English

15 **Triple stack:** Remove the lens cap from the 3rd projector or release the muting by pressing the MUTING key. Put the lens cap on the 2nd projector or mute the picture by pressing the MUTING key. Then press the PATTERN key for 3rd projector on the Remote Commander or the control panel to display the HATCH pattern in yellow.

16 Adjust the focus for 3rd projector aligning the picture of the 3rd projector with that of the 1st projector.

17 Adjust the picture size and the vertical positioning.

Picture size
Adjust it using the ZOOM + or – key on the Remote Commander or the control panel.

Vertical positioning
Adjust it using the SHIFT + or – key on the Remote Commander or the control panel.

18 Adjust the picture precisely as follows. (See page 34.)

A Adjusting the vertical picture size
- ⓐ The left side of the picture is enlarged and right side is shortened, when the knob A is turned counterclockwise.
- ⓑ The right side of the picture is enlarged and left side is shortened, when the knob A is turned clockwise.

B Adjusting the horizontal picture size (adjustment range is ±15 mm)
- ⓒ The picture moves leftward, when the knob B is turned counterclockwise.
- ⓓ The picture moves rightward, when the knob B is turned clockwise.

C Adjusting the incline of the picture (adjustment range is ±2.5°)
- ⓔ The picture turns rightward, when the knob C is turned counterclockwise.
- ⓕ The picture turns leftward, when the knob C is turned clockwise.

(Continued to page 40)

Aligning projectors

English

19 After completing the adjustment, project the input signals from the 2nd and 3rd projectors, be sure to align the pictures. After that, tighten the screws (each 4).

20 Press the PATTERN keys for all projectors on the Remote Commander or the control panel to clear the HATCH pattern.

21 Project the input signals from all projectors.
If the projected pictures are not aligned properly, check the following and adjust the settings.

1 Make sure that all the settings in the INPUT SETTING menu are the same.

2 Adjust the DOT PHASE in the INPUT SETTING menu.

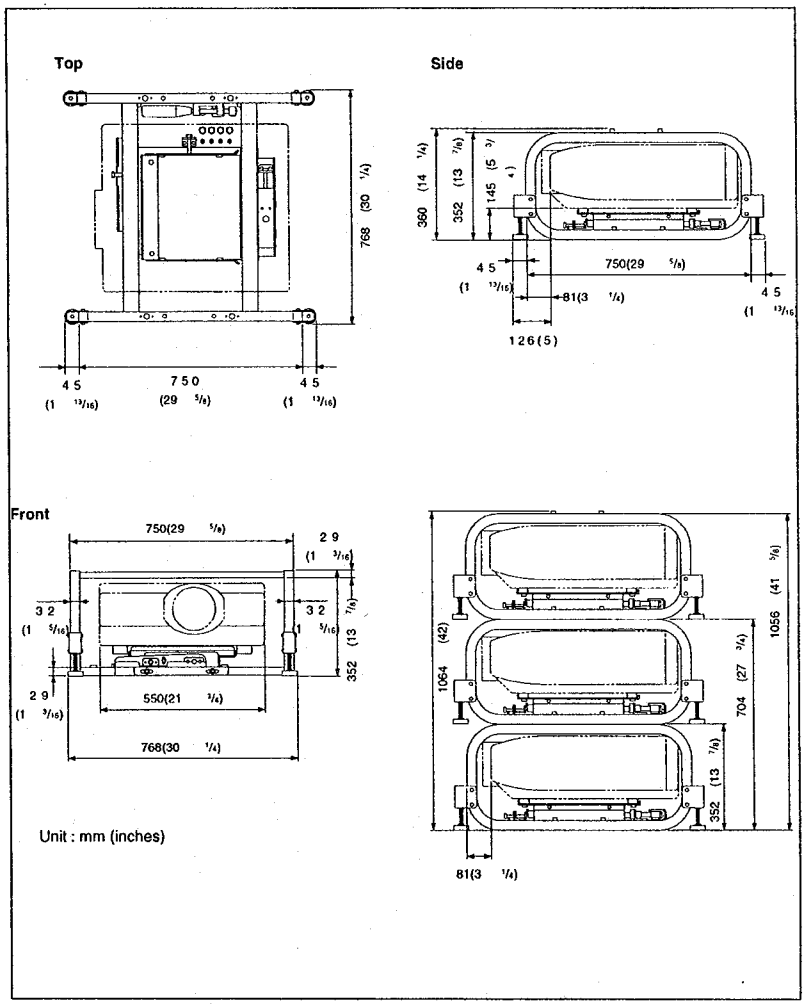
3 Adjust the H value of SHIFT in the INPUT SETTING menu.

Note

When adjusting one projector, put the lens cap on the other projector or mute the picture by pressing the MUTING key.

Specifications

Dimensions



Unit : mm (inches)

English

Mass	Approx. 32kg (70 lb 9 oz)
Maximum load of one projector stand	Up to 50 kg (110 lb 4 oz) per projector
Accessory	Screw M6 × 14 (8) Screw M10 × 20 (4) Shaft stack (4) Bracket stack (4) Flat washer M10 (4) Spring washer M10 (4) The eight spare bolts are attached on the lower tray of the projector stand. Use these spare bolts if necessary.

Design and specifications are subject to change without notice.